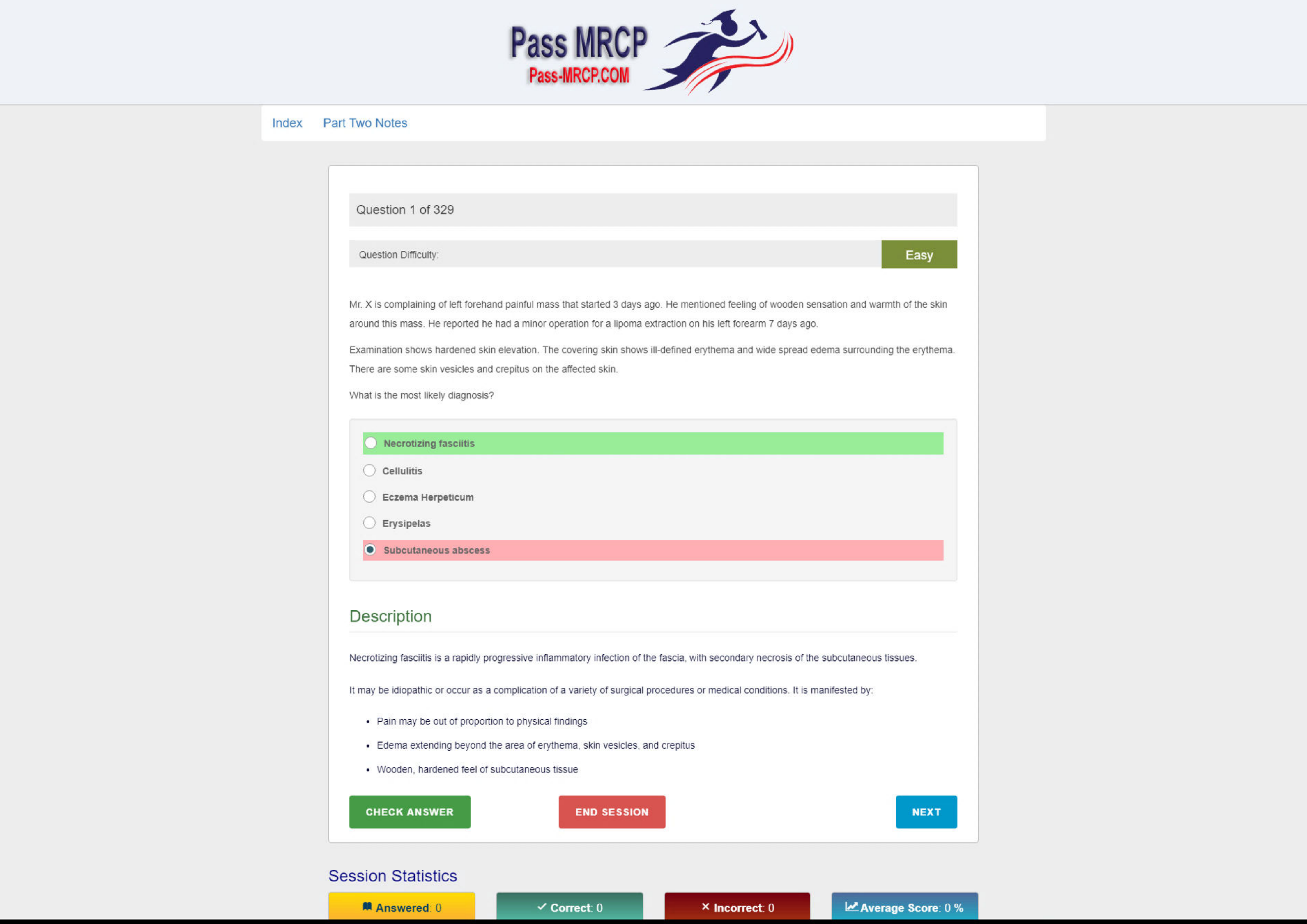


Question 1 of 329

Question Difficulty: **Easy**

Mr. X is complaining of left forehand painful mass that started 3 days ago. He mentioned feeling of wooden sensation and warmth of the skin around this mass. He reported he had a minor operation for a lipoma extraction on his left forearm 7 days ago.

Examination shows hardened skin elevation. The covering skin shows ill-defined erythema and wide spread edema surrounding the erythema. There are some skin vesicles and crepitus on the affected skin.

What is the most likely diagnosis?

- ○ **Necrotizing fasciitis**
- ○ **Cellulitis**
- ○ **Eczema Herpeticum**
- ○ **Erysipelas**
- ● **Subcutaneous abscess**

## Description

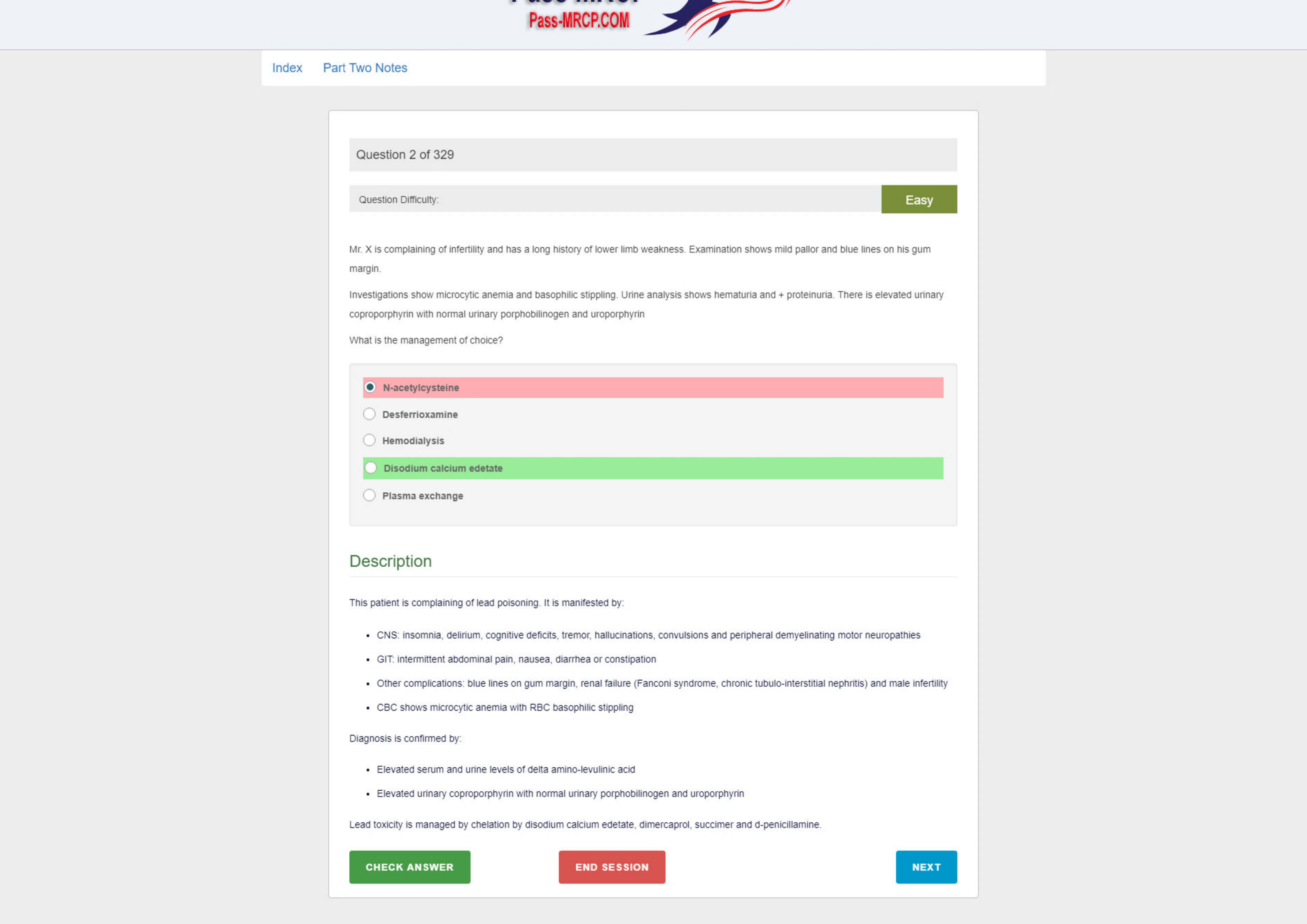
Necrotizing fasciitis is a rapidly progressive inflammatory infection of the fascia, with secondary necrosis of the subcutaneous tissues.

It may be idiopathic or occur as a complication of a variety of surgical procedures or medical conditions. It is manifested by:

- Pain may be out of proportion to physical findings
- Edema extending beyond the area of erythema, skin vesicles, and crepitus
- Wooden, hardened feel of subcutaneous tissue

Session Statistics

**Answered**: 0
**Correct**: 0
**Incorrect**: 0
**Average Score**: 0 %



Question 2 of 329

Question Difficulty: Easy

Mr. X is complaining of infertility and has a long history of lower limb weakness. Examination shows mild pallor and blue lines on his gum margin.

Investigations show microcytic anemia and basophilic stippling. Urine analysis shows hematuria and + proteinuria. There is elevated urinary coproporphyrin with normal urinary porphobilinogen and uroporphyrin

What is the management of choice?

● **N-acetylcysteine**
○ **Desferrioxamine**
○ **Hemodialysis**
○ **Disodium calcium edetate**
○ **Plasma exchange**

## Description

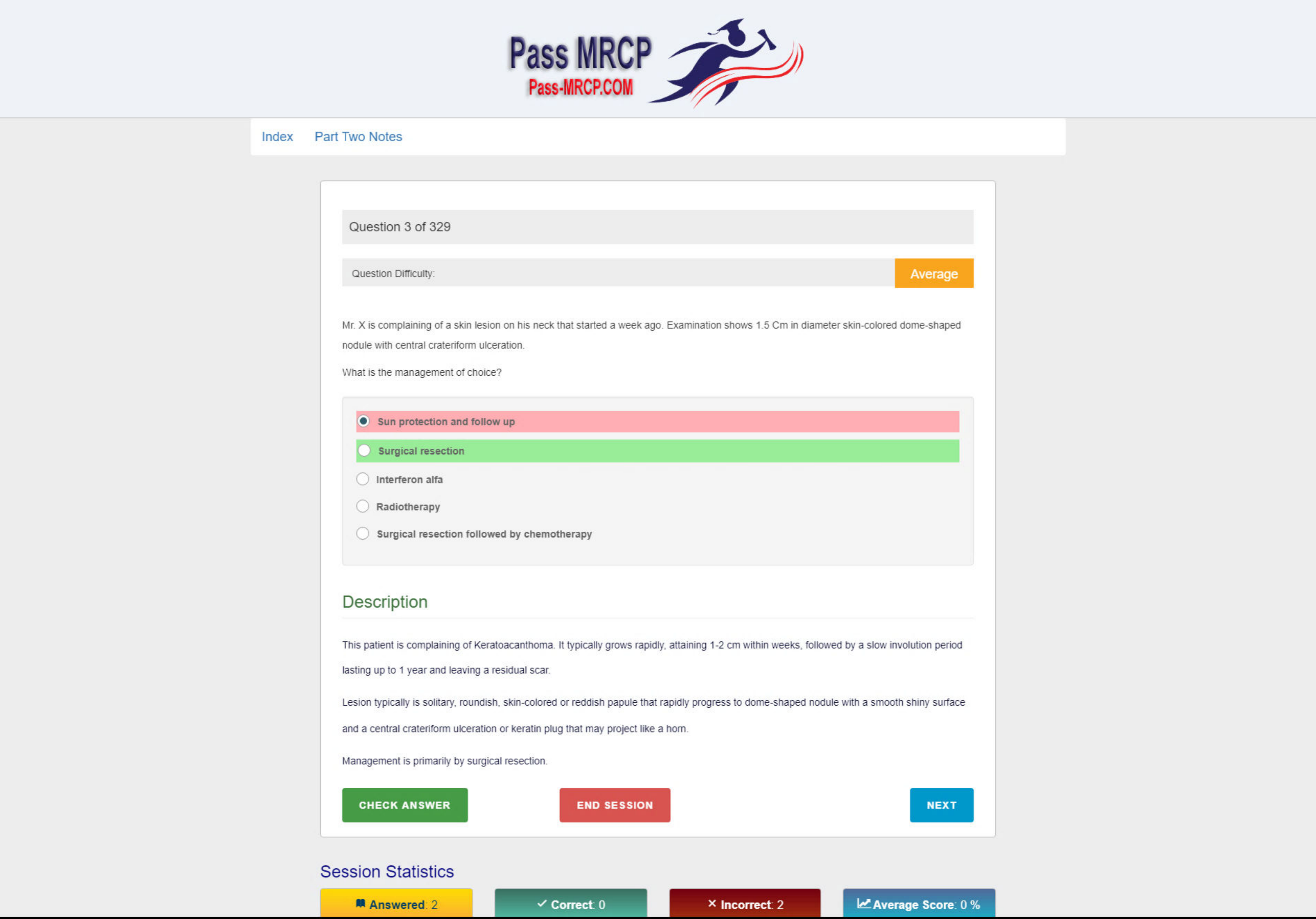
This patient is complaining of lead poisoning. It is manifested by:

- CNS: insomnia, delirium, cognitive deficits, tremor, hallucinations, convulsions and peripheral demyelinating motor neuropathies
- GIT: intermittent abdominal pain, nausea, diarrhea or constipation
- Other complications: blue lines on gum margin, renal failure (Fanconi syndrome, chronic tubulo-interstitial nephritis) and male infertility
- CBC shows microcytic anemia with RBC basophilic stippling

Diagnosis is confirmed by:

- Elevated serum and urine levels of delta amino-levulinic acid
- Elevated urinary coproporphyrin with normal urinary porphobilinogen and uroporphyrin

Lead toxicity is managed by chelation by disodium calcium edetate, dimercaprol, succimer and d-penicillamine.



Question 3 of 329

Question Difficulty: Average

Mr. X is complaining of a skin lesion on his neck that started a week ago. Examination shows 1.5 Cm in diameter skin-colored dome-shaped nodule with central crateriform ulceration.

What is the management of choice?

- ● **Sun protection and follow up**
- ○ **Surgical resection**
- ○ **Interferon alfa**
- ○ **Radiotherapy**
- ○ **Surgical resection followed by chemotherapy**

## Description

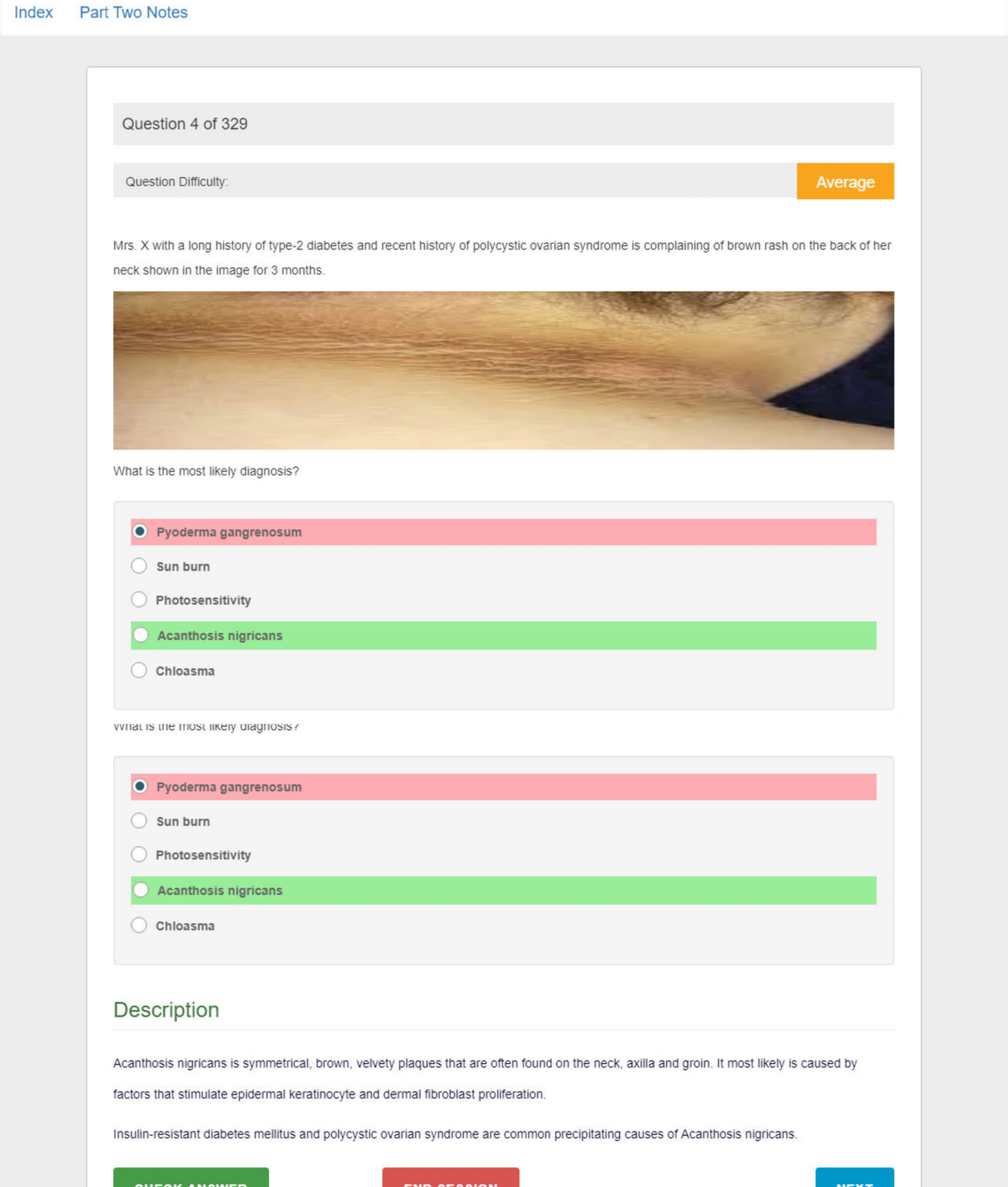
This patient is complaining of Keratoacanthoma. It typically grows rapidly, attaining 1-2 cm within weeks, followed by a slow involution period lasting up to 1 year and leaving a residual scar.

Lesion typically is solitary, roundish, skin-colored or reddish papule that rapidly progress to dome-shaped nodule with a smooth shiny surface and a central crateriform ulceration or keratin plug that may project like a horn.

Management is primarily by surgical resection.

Session Statistics

**Answered**: 2
**Correct**: 0
**Incorrect**: 2
**Average Score**: 0 %



Question 4 of 329

Question Difficulty: **Average**

Mrs. X with a long history of type-2 diabetes and recent history of polycystic ovarian syndrome is complaining of brown rash on the back of her neck shown in the image for 3 months.

What is the most likely diagnosis?

- ● Pyoderma gangrenosum
- ○ Sun burn
- ○ Photosensitivity
- ○ Acanthosis nigricans
- ○ Chloasma

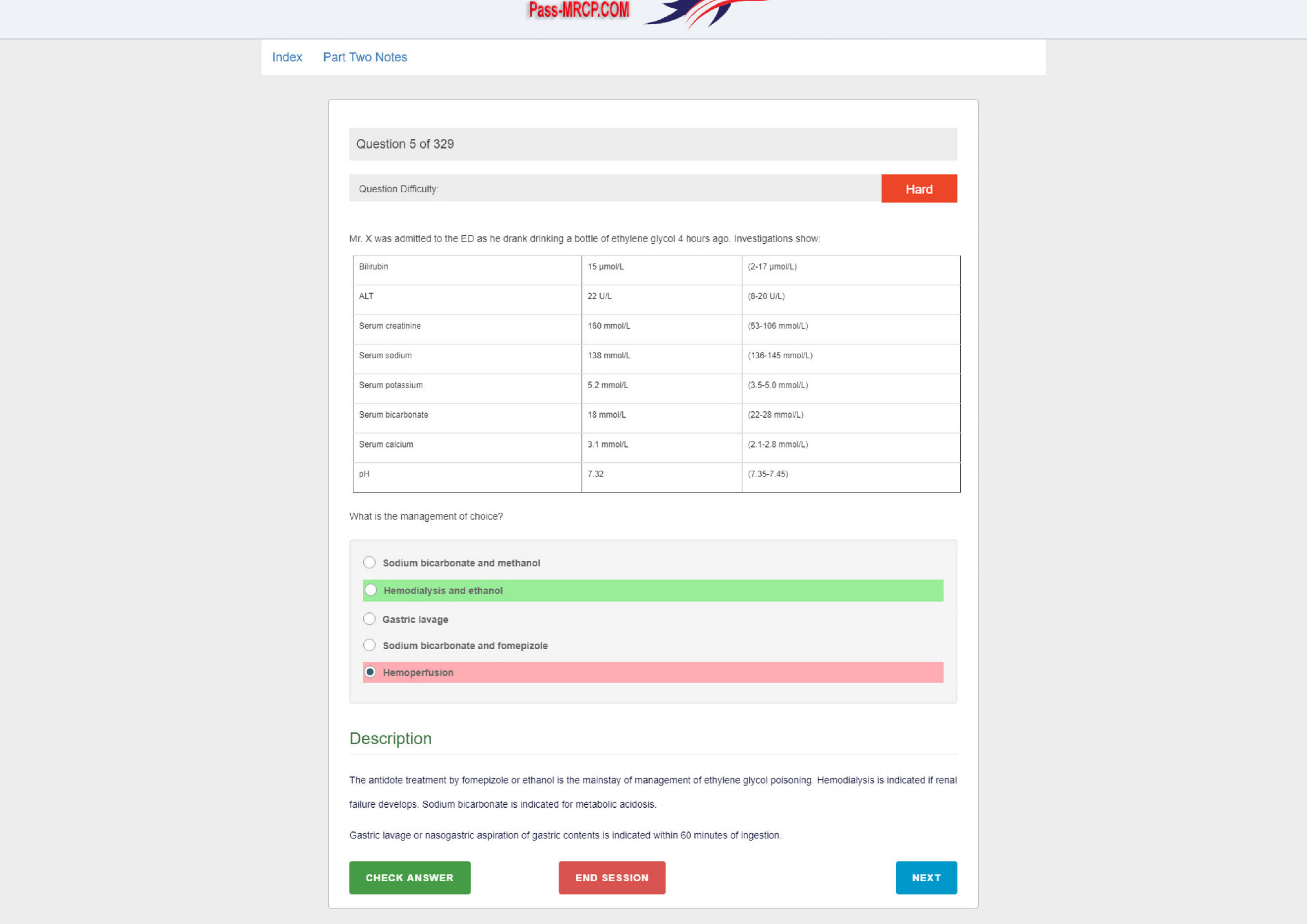
What is the most likely diagnosis?

- ● Pyoderma gangrenosum
- ○ Sun burn
- ○ Photosensitivity
- ○ Acanthosis nigricans
- ○ Chloasma

## Description

Acanthosis nigricans is symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin. It most likely is caused by factors that stimulate epidermal keratinocyte and dermal fibroblast proliferation.

Insulin-resistant diabetes mellitus and polycystic ovarian syndrome are common precipitating causes of Acanthosis nigricans.



Question 5 of 329

Question Difficulty: Hard

Mr. X was admitted to the ED as he drank drinking a bottle of ethylene glycol 4 hours ago. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 µmol/L | (2-17 µmol/L) |
| ALT | 22 U/L | (8-20 U/L) |
| Serum creatinine | 160 mmol/L | (53-106 mmol/L) |
| Serum sodium | 138 mmol/L | (136-145 mmol/L) |
| Serum potassium | 5.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 18 mmol/L | (22-28 mmol/L) |
| Serum calcium | 3.1 mmol/L | (2.1-2.8 mmol/L) |
| pH | 7.32 | (7.35-7.45) |

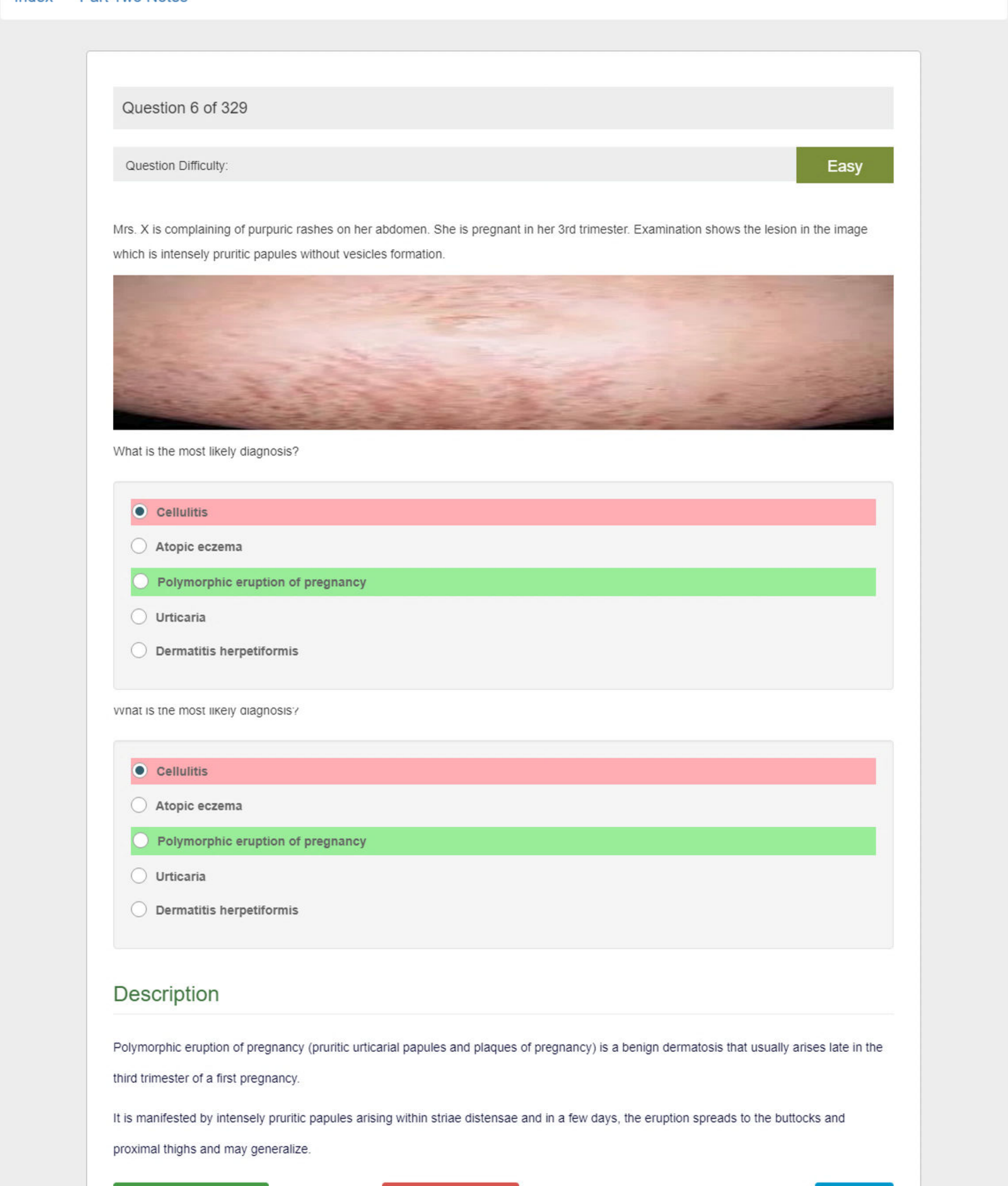
What is the management of choice?

- ○ **Sodium bicarbonate and methanol**
- ○ **Hemodialysis and ethanol**
- ○ **Gastric lavage**
- ○ **Sodium bicarbonate and fomepizole**
- ● **Hemoperfusion**

## Description

The antidote treatment by fomepizole or ethanol is the mainstay of management of ethylene glycol poisoning. Hemodialysis is indicated if renal failure develops. Sodium bicarbonate is indicated for metabolic acidosis.

Gastric lavage or nasogastric aspiration of gastric contents is indicated within 60 minutes of ingestion.



Question 6 of 329

Question Difficulty: Easy

Mrs. X is complaining of purpuric rashes on her abdomen. She is pregnant in her 3rd trimester. Examination shows the lesion in the image which is intensely pruritic papules without vesicles formation.

What is the most likely diagnosis?

- ● Cellulitis
- ○ Atopic eczema
- ○ Polymorphic eruption of pregnancy
- ○ Urticaria
- ○ Dermatitis herpetiformis

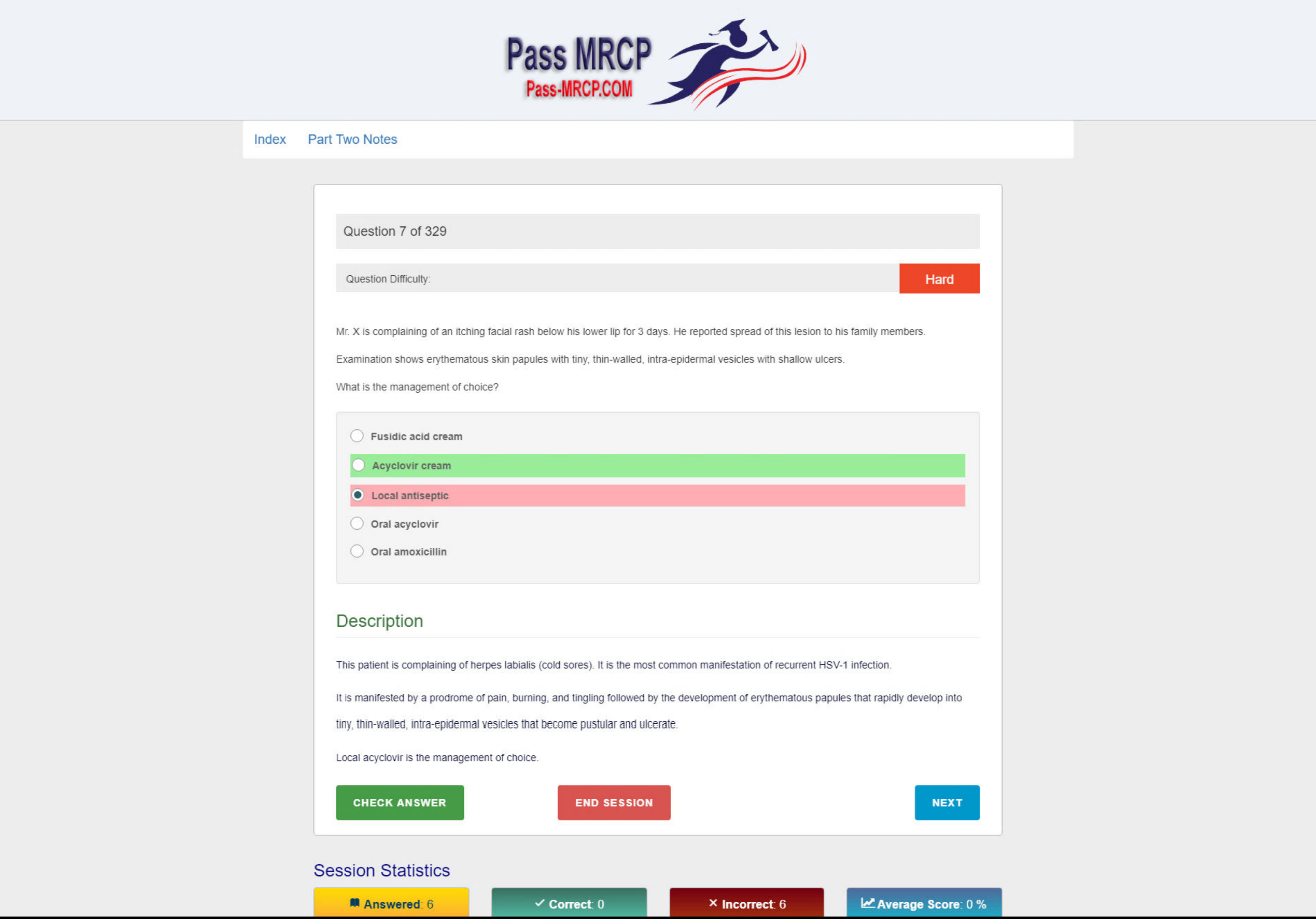
What is the most likely diagnosis?

- ● Cellulitis
- ○ Atopic eczema
- ○ Polymorphic eruption of pregnancy
- ○ Urticaria
- ○ Dermatitis herpetiformis

## Description

Polymorphic eruption of pregnancy (pruritic urticarial papules and plaques of pregnancy) is a benign dermatosis that usually arises late in the third trimester of a first pregnancy.

It is manifested by intensely pruritic papules arising within striae distensae and in a few days, the eruption spreads to the buttocks and proximal thighs and may generalize.



Question 7 of 329

Question Difficulty: Hard

Mr. X is complaining of an itching facial rash below his lower lip for 3 days. He reported spread of this lesion to his family members.

Examination shows erythematous skin papules with tiny, thin-walled, intra-epidermal vesicles with shallow ulcers.

What is the management of choice?

- ○ Fusidic acid cream
- ○ Acyclovir cream
- ● Local antiseptic
- ○ Oral acyclovir
- ○ Oral amoxicillin

## Description

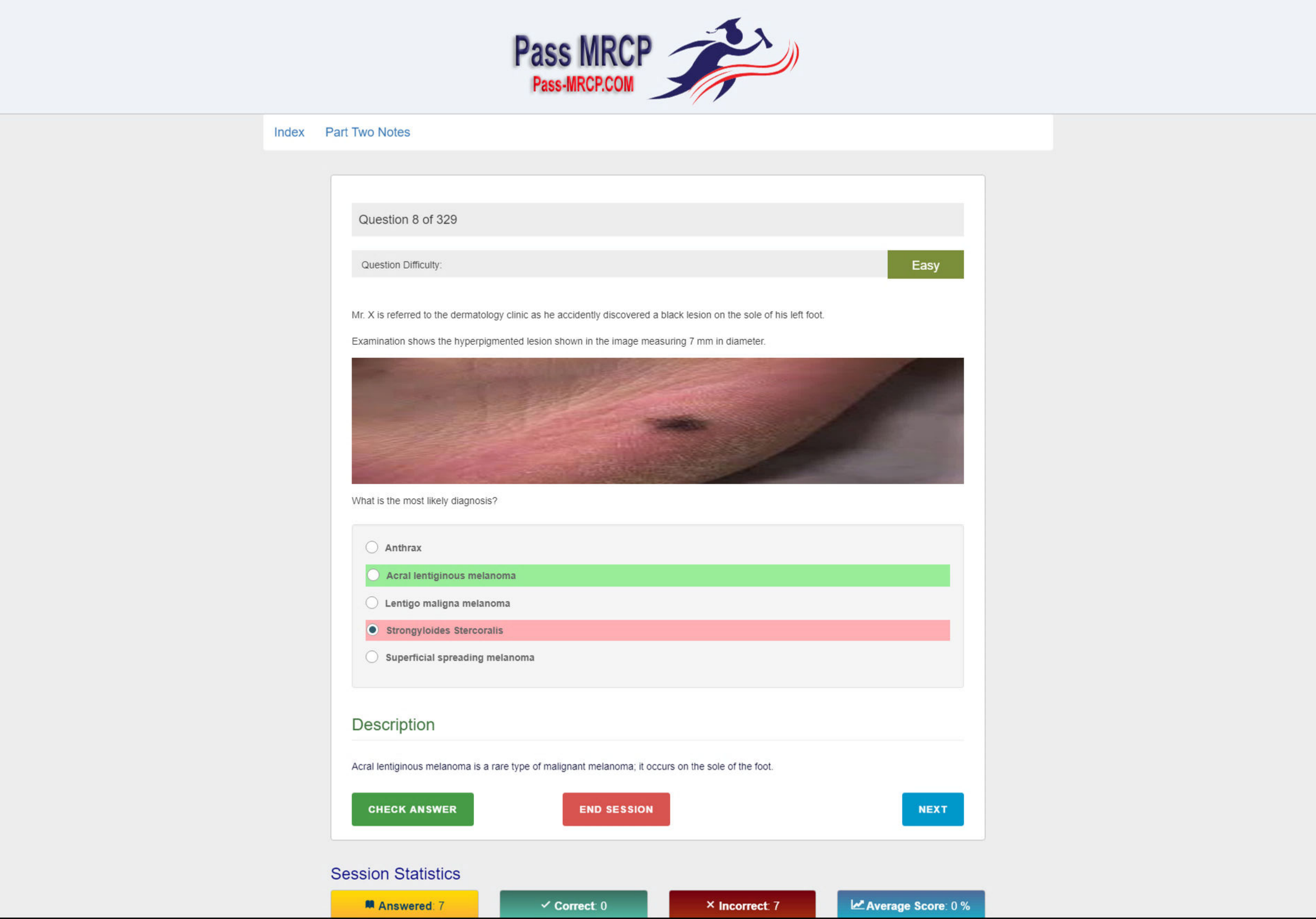
This patient is complaining of herpes labialis (cold sores). It is the most common manifestation of recurrent HSV-1 infection.

It is manifested by a prodrome of pain, burning, and tingling followed by the development of erythematous papules that rapidly develop into tiny, thin-walled, intra-epidermal vesicles that become pustular and ulcerate.

Local acyclovir is the management of choice.

Session Statistics

Answered: 6
✓ Correct: 0
✕ Incorrect: 6
Average Score: 0 %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Question 8 of 329

Question Difficulty: Easy

Mr. X is referred to the dermatology clinic as he accidently discovered a black lesion on the sole of his left foot.

Examination shows the hyperpigmented lesion shown in the image measuring 7 mm in diameter.

What is the most likely diagnosis?

- ○ Anthrax
- ○ Acral lentiginous melanoma
- ○ Lentigo maligna melanoma
- ● Strongyloides Stercoralis
- ○ Superficial spreading melanoma

## Description

Acral lentiginous melanoma is a rare type of malignant melanoma; it occurs on the sole of the foot.

CHECK ANSWER
END SESSION
NEXT

Session Statistics

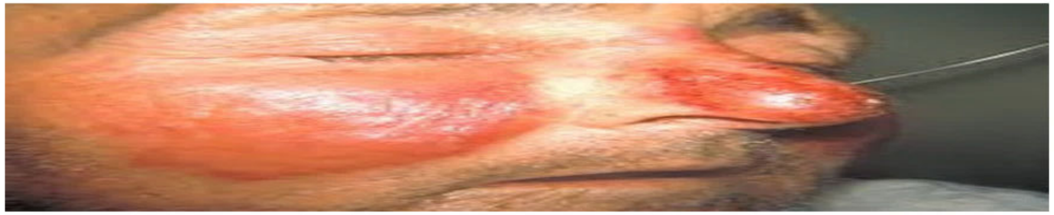
Answered: 7
Correct: 0
Incorrect: 7
Average Score: 0 %

Question 9 of 329

Question Difficulty: Average

Mr. X is complaining of progressive swelling of the right side of his face that made him unable to open his right eye associated with fever and itching rash for 4 days.

Examination shows tender, intensely erythematous, indurated plaque with a sharply demarcated border involving the upper dermis as shown in the image. There is tender cervical lymphadenopathy.



Which of the following is the most likely causative organism?

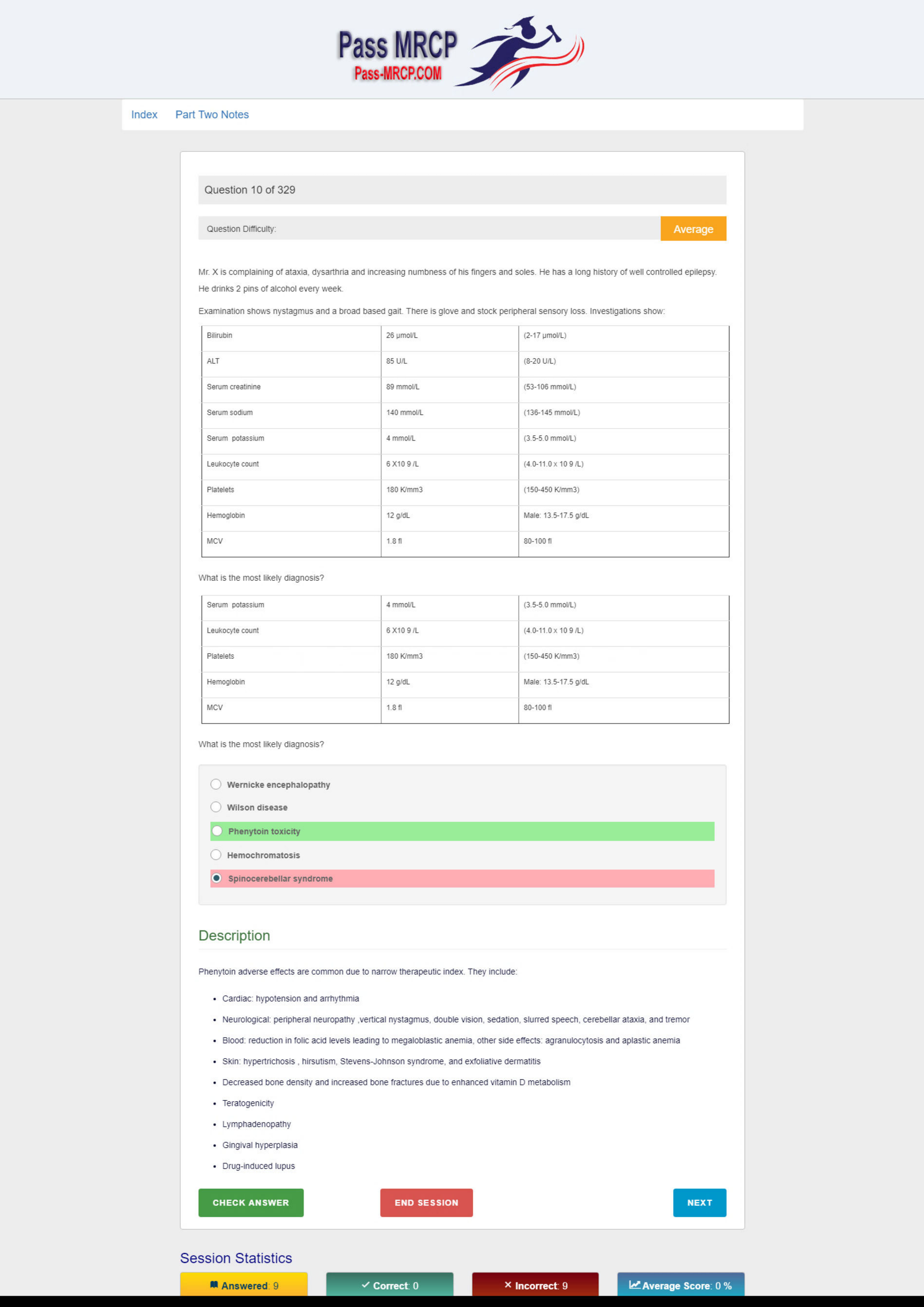
● Haemophilus influenzae
○ Herpes simplex virus
○ Streptococcus pneumoniae
○ Streptococcus pyogenes

## Description

This patient is complaining of erysipelas. It is a bacterial skin infection caused by Group A-Beta-hemolytic streptococcus pyogenes. It is manifested by:

- Prodromal symptoms, such as malaise, chills, and high fever, often begin before the onset of the skin lesions
- Tender, intensely erythematous, indurated plaque with a sharply demarcated border involving the upper dermis
- Muscle and joint pain
- Tender lymphadenopathy

CHECK ANSWER END SESSION NEXT



Question 10 of 329

Question Difficulty: **Average**

Mr. X is complaining of ataxia, dysarthria and increasing numbness of his fingers and soles. He has a long history of well controlled epilepsy. He drinks 2 pins of alcohol every week.

Examination shows nystagmus and a broad based gait. There is glove and stock peripheral sensory loss. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 26 µmol/L | (2-17 µmol/L) |
| ALT | 85 U/L | (8-20 U/L) |
| Serum creatinine | 89 mmol/L | (53-106 mmol/L) |
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4 mmol/L | (3.5-5.0 mmol/L) |
| Leukocyte count | 6 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 180 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | Male: 13.5-17.5 g/dL |
| MCV | 1.8 fl | 80-100 fl |

What is the most likely diagnosis?

| | | |
|---|---|---|
| Serum potassium | 4 mmol/L | (3.5-5.0 mmol/L) |
| Leukocyte count | 6 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 180 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | Male: 13.5-17.5 g/dL |
| MCV | 1.8 fl | 80-100 fl |

What is the most likely diagnosis?

○ **Wernicke encephalopathy**
○ **Wilson disease**
○ **Phenytoin toxicity**
○ **Hemochromatosis**
● **Spinocerebellar syndrome**

## Description

Phenytoin adverse effects are common due to narrow therapeutic index. They include:

- Cardiac: hypotension and arrhythmia
- Neurological: peripheral neuropathy ,vertical nystagmus, double vision, sedation, slurred speech, cerebellar ataxia, and tremor
- Blood: reduction in folic acid levels leading to megaloblastic anemia, other side effects: agranulocytosis and aplastic anemia
- Skin: hypertrichosis , hirsutism, Stevens-Johnson syndrome, and exfoliative dermatitis
- Decreased bone density and increased bone fractures due to enhanced vitamin D metabolism
- Teratogenicity
- Lymphadenopathy
- Gingival hyperplasia
- Drug-induced lupus

## Session Statistics

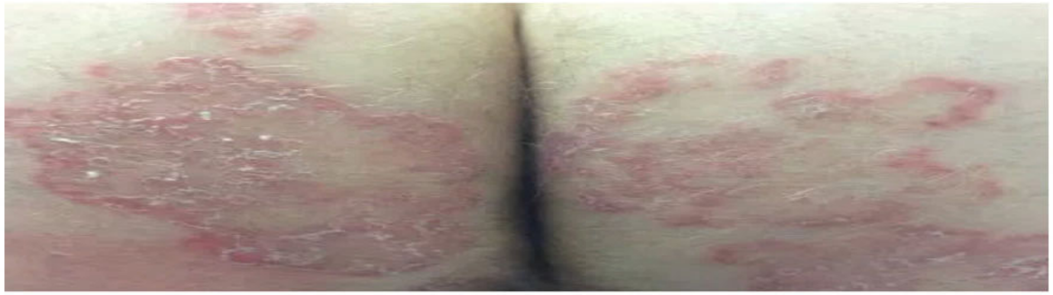
| Answered | Correct | Incorrect | Average Score |
|---|---|---|---|
| 9 | 0 | 9 | 0 % |

Question 11 of 329

Question Difficulty: Hard

Mr. X is complaining of an itchy rash over his left buttock. He reported it is increasing in size since he discovered it 2 weeks ago.

Examination shows erythematous annular lesion with 5 CM diameter with central resolution and the border shows crusts and vesicles as in the image.



What is the most likely diagnosis?

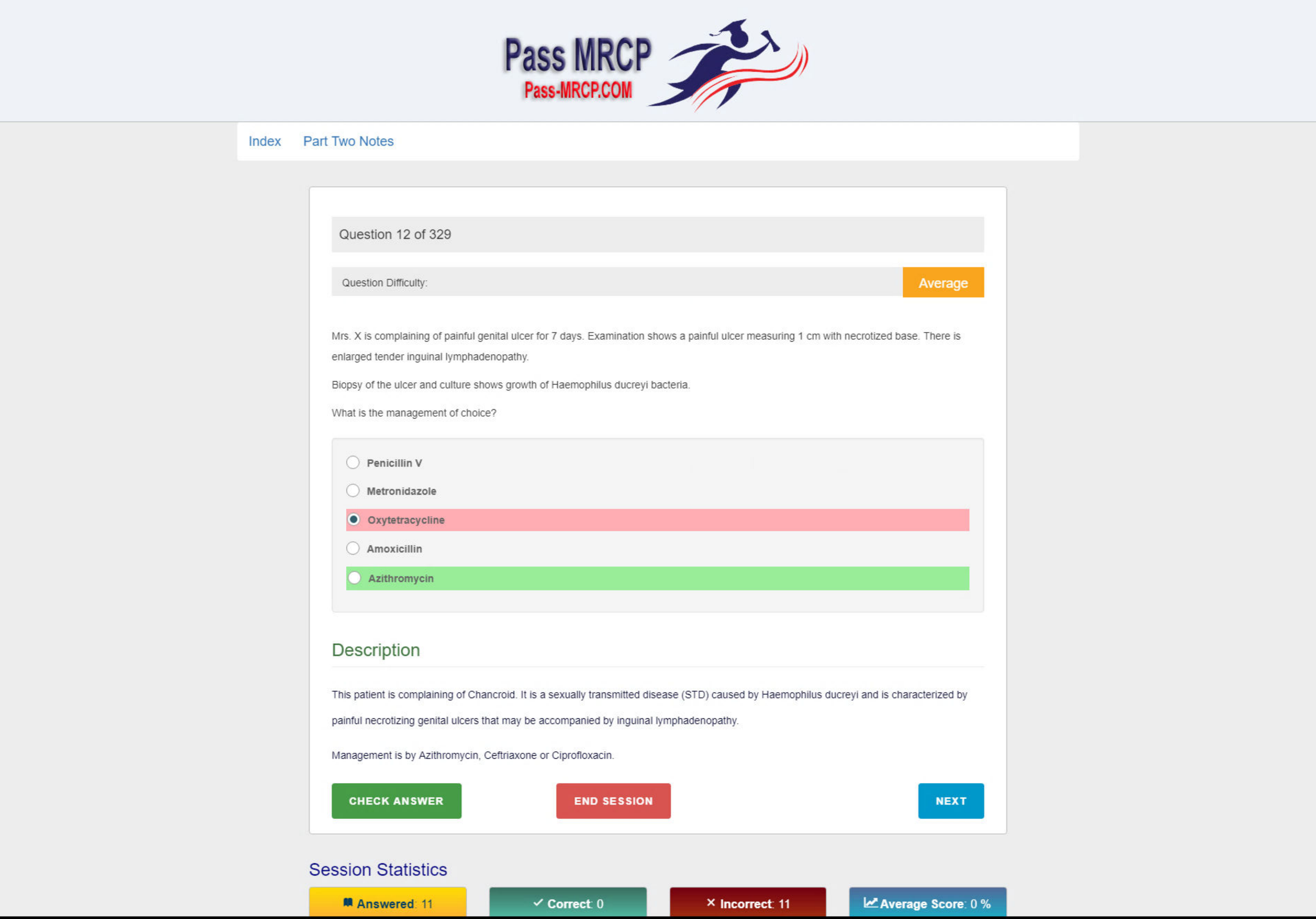
- ● **Allergic contact dermatitis**
- ○ **Rosacea**
- ○ **Tinea corporis**
- ○ **Sarcoidosis**
- ○ **Psoriasis**

## Description

Tinea corporis is a superficial dermatophyte infection characterized by inflammatory or non-inflammatory lesions especially on the groin, face and trunk. It is manifested by:

- The lesion begins as an erythematous or annular in shape, scaly plaque that may rapidly worsen followed by central resolution
- The border shows scale, crust, papules, vesicles, and even bullae

CHECK ANSWER END SESSION NEXT



Question 12 of 329

Question Difficulty: Average

Mrs. X is complaining of painful genital ulcer for 7 days. Examination shows a painful ulcer measuring 1 cm with necrotized base. There is enlarged tender inguinal lymphadenopathy.

Biopsy of the ulcer and culture shows growth of Haemophilus ducreyi bacteria.

What is the management of choice?

- ○ Penicillin V
- ○ Metronidazole
- ● Oxytetracycline
- ○ Amoxicillin
- ○ Azithromycin

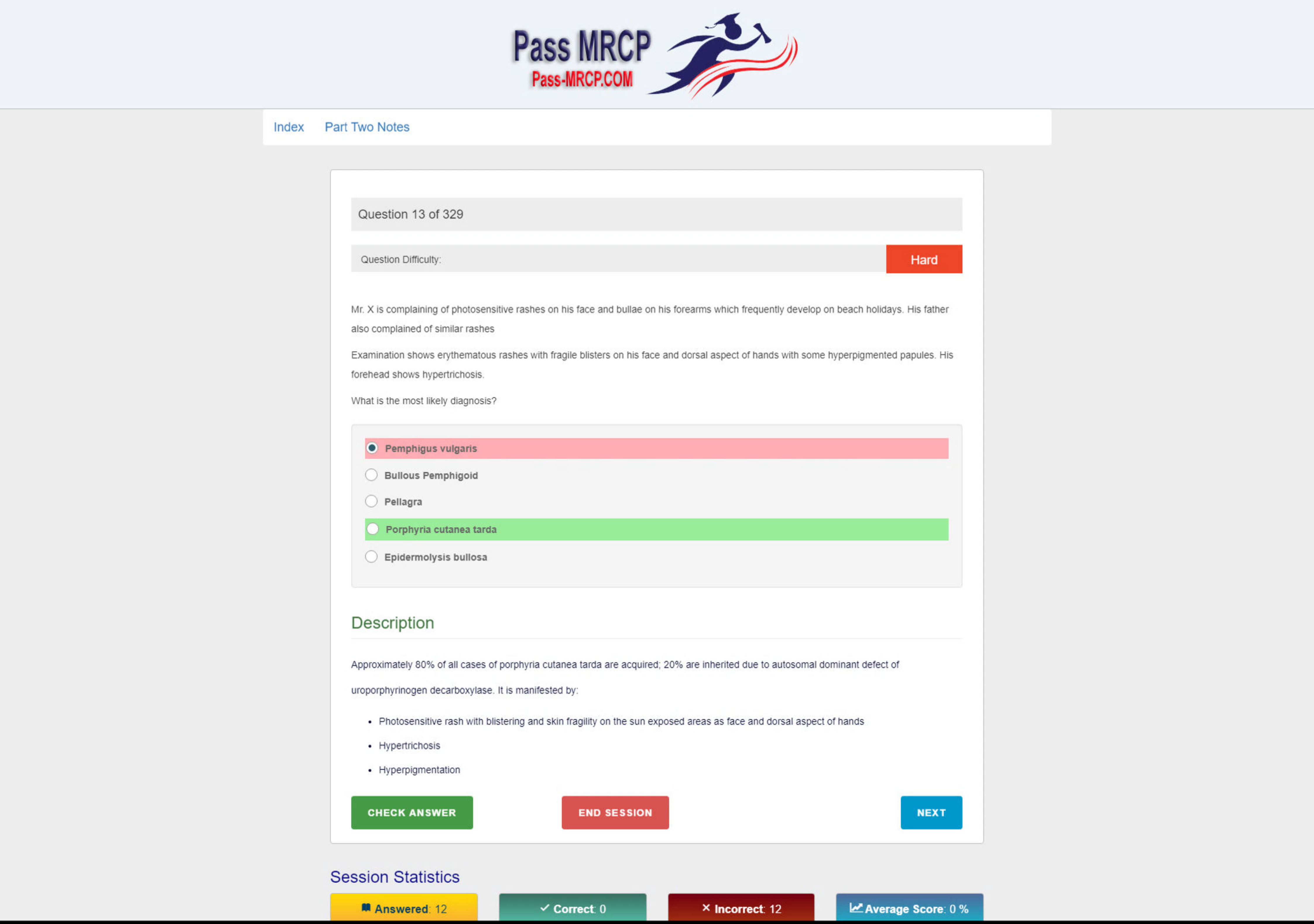
## Description

This patient is complaining of Chancroid. It is a sexually transmitted disease (STD) caused by Haemophilus ducreyi and is characterized by painful necrotizing genital ulcers that may be accompanied by inguinal lymphadenopathy.

Management is by Azithromycin, Ceftriaxone or Ciprofloxacin.

## Session Statistics

Answered: 11
✓ Correct: 0
✕ Incorrect: 11
Average Score: 0 %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Question 13 of 329

Question Difficulty: **Hard**

Mr. X is complaining of photosensitive rashes on his face and bullae on his forearms which frequently develop on beach holidays. His father also complained of similar rashes

Examination shows erythematous rashes with fragile blisters on his face and dorsal aspect of hands with some hyperpigmented papules. His forehead shows hypertrichosis.

What is the most likely diagnosis?

● **Pemphigus vulgaris**
○ **Bullous Pemphigoid**
○ **Pellagra**
○ **Porphyria cutanea tarda**
○ **Epidermolysis bullosa**

## Description

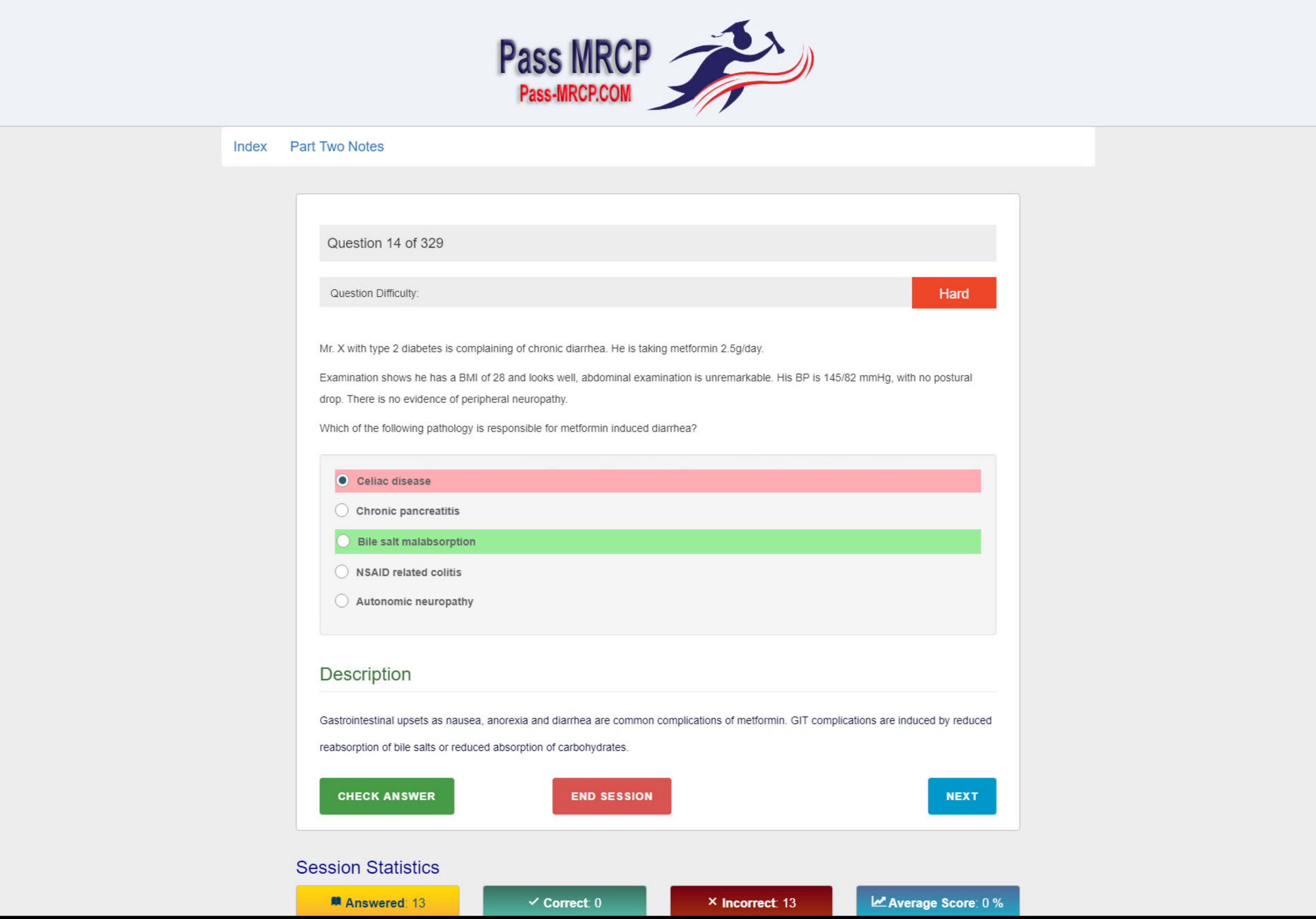
Approximately 80% of all cases of porphyria cutanea tarda are acquired; 20% are inherited due to autosomal dominant defect of uroporphyrinogen decarboxylase. It is manifested by:

- Photosensitive rash with blistering and skin fragility on the sun exposed areas as face and dorsal aspect of hands
- Hypertrichosis
- Hyperpigmentation

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 12
Correct: 0
Incorrect: 12
Average Score: 0 %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Question 14 of 329

Question Difficulty: **Hard**

Mr. X with type 2 diabetes is complaining of chronic diarrhea. He is taking metformin 2.5g/day.

Examination shows he has a BMI of 28 and looks well, abdominal examination is unremarkable. His BP is 145/82 mmHg, with no postural drop. There is no evidence of peripheral neuropathy.

Which of the following pathology is responsible for metformin induced diarrhea?

- ● **Celiac disease**
- ○ **Chronic pancreatitis**
- ○ **Bile salt malabsorption**
- ○ **NSAID related colitis**
- ○ **Autonomic neuropathy**

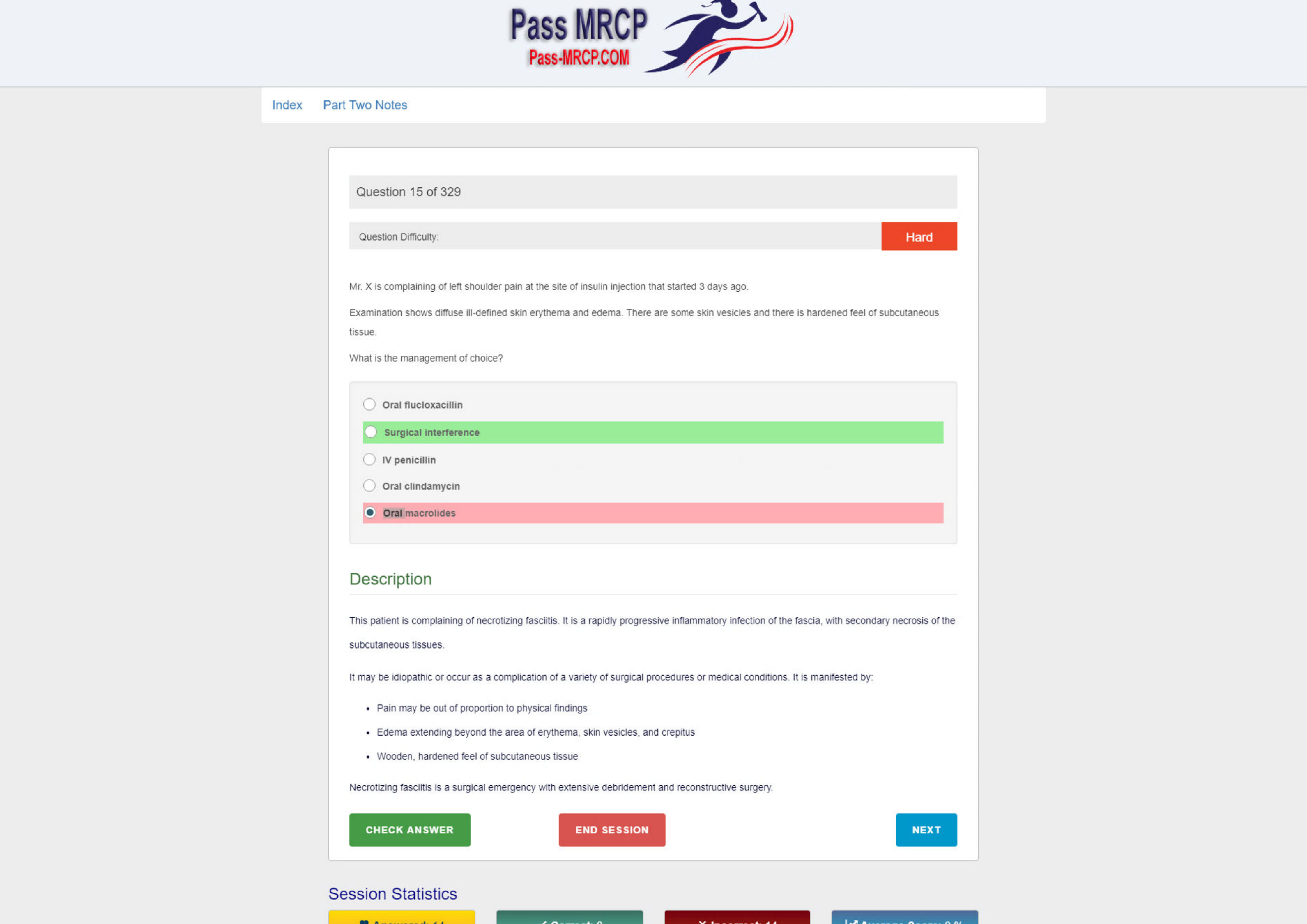
## Description

Gastrointestinal upsets as nausea, anorexia and diarrhea are common complications of metformin. GIT complications are induced by reduced reabsorption of bile salts or reduced absorption of carbohydrates.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 13
✓ Correct: 0
× Incorrect: 13
Average Score: 0 %



Question 15 of 329

Question Difficulty: Hard

Mr. X is complaining of left shoulder pain at the site of insulin injection that started 3 days ago.

Examination shows diffuse ill-defined skin erythema and edema. There are some skin vesicles and there is hardened feel of subcutaneous tissue.

What is the management of choice?

○ Oral flucloxacillin
○ Surgical interference
○ IV penicillin
○ Oral clindamycin
● Oral macrolides

## Description

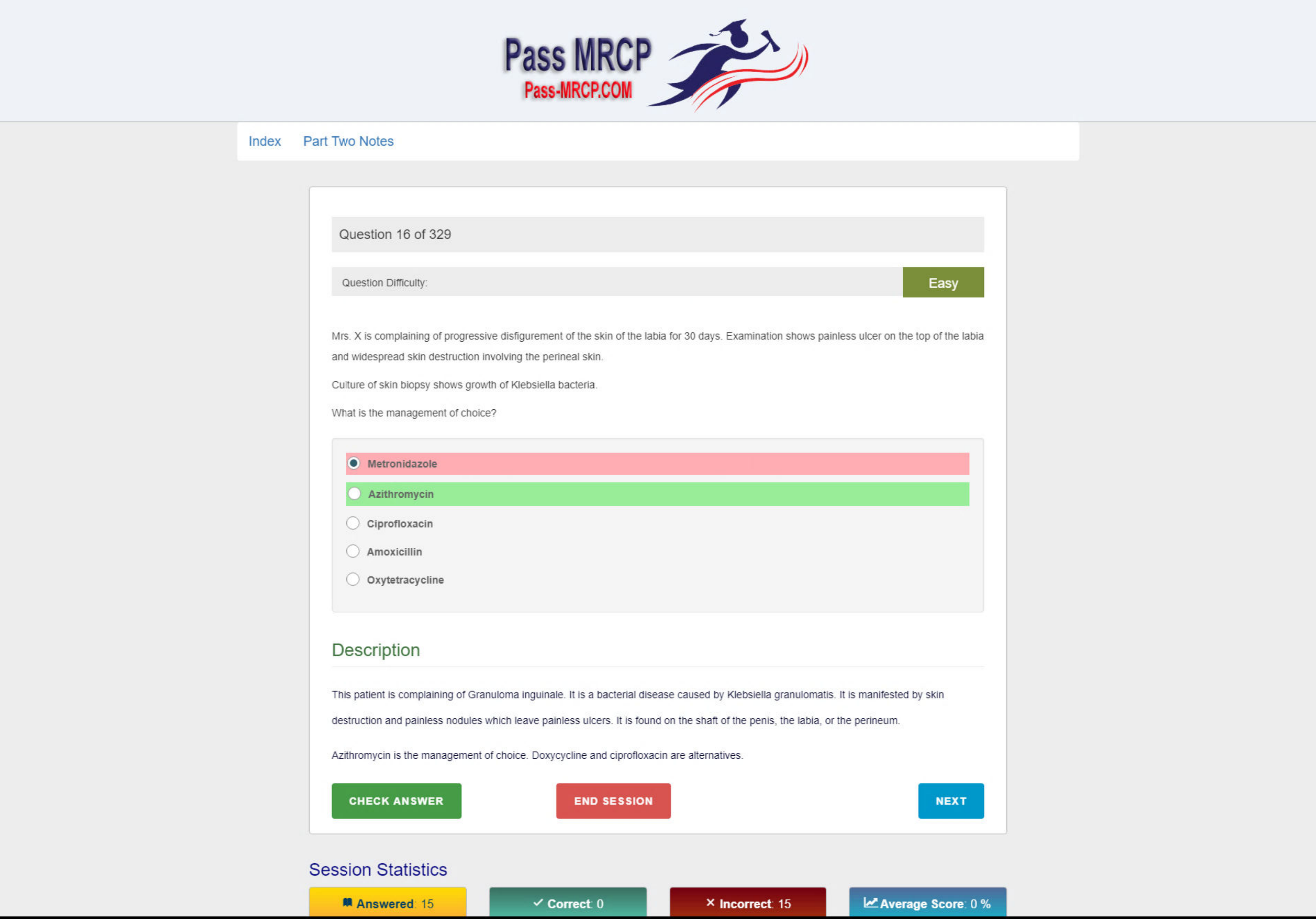
This patient is complaining of necrotizing fasciitis. It is a rapidly progressive inflammatory infection of the fascia, with secondary necrosis of the subcutaneous tissues.

It may be idiopathic or occur as a complication of a variety of surgical procedures or medical conditions. It is manifested by:

- Pain may be out of proportion to physical findings
- Edema extending beyond the area of erythema, skin vesicles, and crepitus
- Wooden, hardened feel of subcutaneous tissue

Necrotizing fasciitis is a surgical emergency with extensive debridement and reconstructive surgery.

Session Statistics



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Question 16 of 329

Question Difficulty: Easy

Mrs. X is complaining of progressive disfigurement of the skin of the labia for 30 days. Examination shows painless ulcer on the top of the labia and widespread skin destruction involving the perineal skin.

Culture of skin biopsy shows growth of Klebsiella bacteria.

What is the management of choice?

- ● **Metronidazole**
- ○ **Azithromycin**
- ○ **Ciprofloxacin**
- ○ **Amoxicillin**
- ○ **Oxytetracycline**

## Description

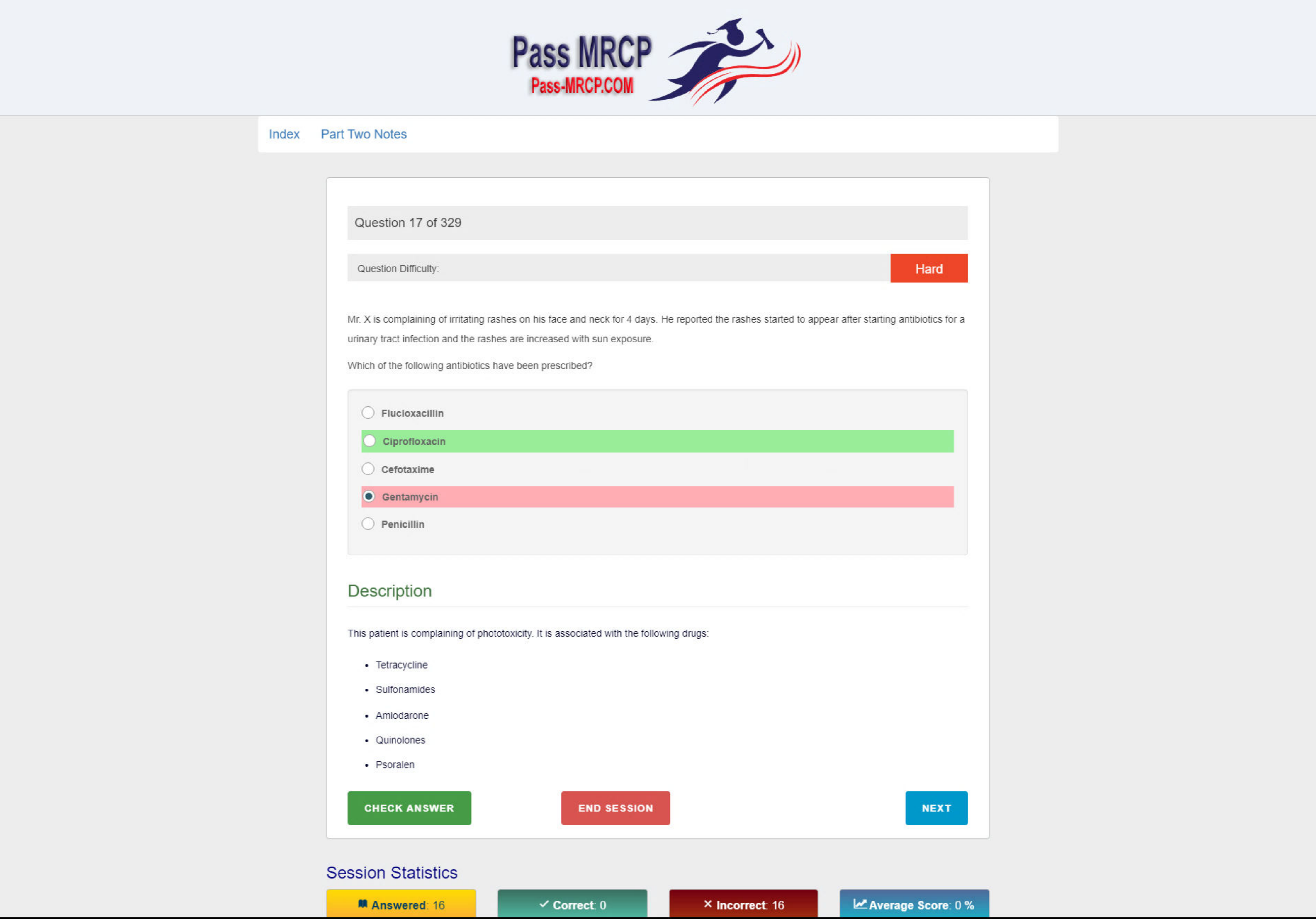
This patient is complaining of Granuloma inguinale. It is a bacterial disease caused by Klebsiella granulomatis. It is manifested by skin destruction and painless nodules which leave painless ulcers. It is found on the shaft of the penis, the labia, or the perineum.

Azithromycin is the management of choice. Doxycycline and ciprofloxacin are alternatives.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 15
✓ Correct: 0
✕ Incorrect: 15
Average Score: 0 %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Question 17 of 329

Question Difficulty: Hard

Mr. X is complaining of irritating rashes on his face and neck for 4 days. He reported the rashes started to appear after starting antibiotics for a urinary tract infection and the rashes are increased with sun exposure.

Which of the following antibiotics have been prescribed?

○ **Flucloxacillin**
○ **Ciprofloxacin**
○ **Cefotaxime**
● **Gentamycin**
○ **Penicillin**

## Description

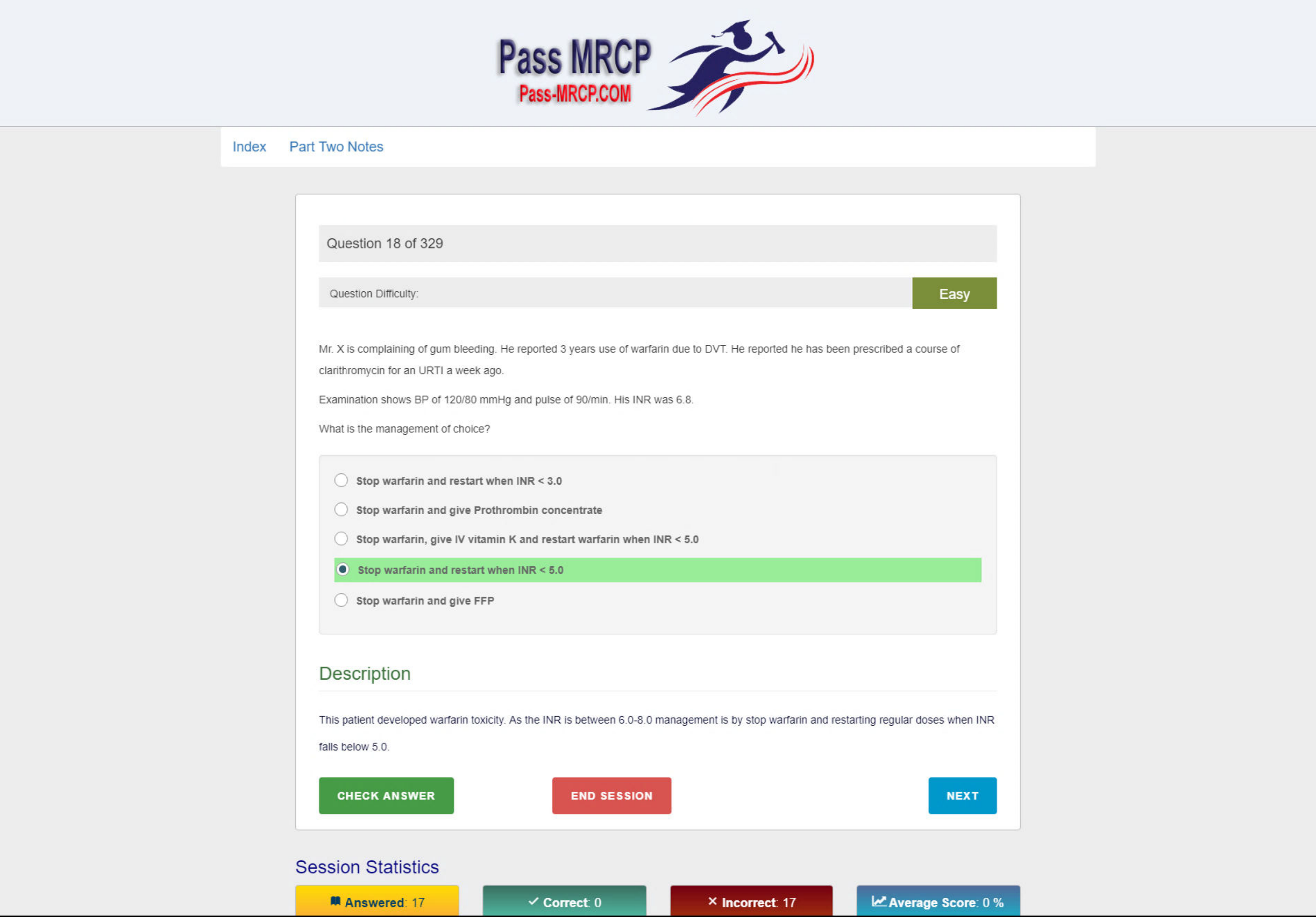
This patient is complaining of phototoxicity. It is associated with the following drugs:

- Tetracycline
- Sulfonamides
- Amiodarone
- Quinolones
- Psoralen

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

**Answered**: 16
✓ **Correct**: 0
× **Incorrect**: 16
**Average Score**: 0 %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Question 18 of 329

Question Difficulty: Easy

Mr. X is complaining of gum bleeding. He reported 3 years use of warfarin due to DVT. He reported he has been prescribed a course of clarithromycin for an URTI a week ago.

Examination shows BP of 120/80 mmHg and pulse of 90/min. His INR was 6.8.

What is the management of choice?

○ **Stop warfarin and restart when INR < 3.0**
○ **Stop warfarin and give Prothrombin concentrate**
○ **Stop warfarin, give IV vitamin K and restart warfarin when INR < 5.0**
● **Stop warfarin and restart when INR < 5.0**
○ **Stop warfarin and give FFP**

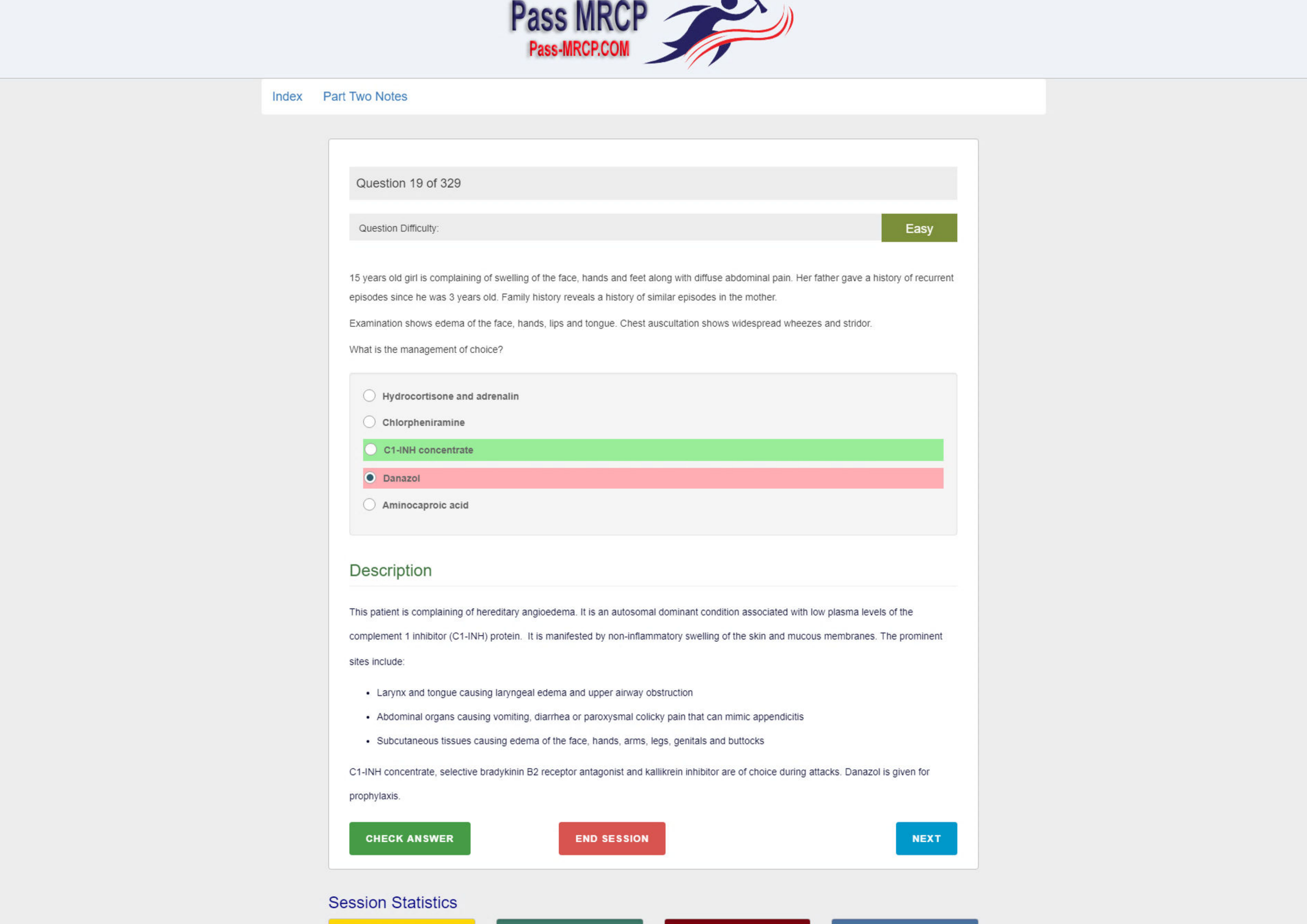
## Description

This patient developed warfarin toxicity. As the INR is between 6.0-8.0 management is by stop warfarin and restarting regular doses when INR falls below 5.0.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 17
✓ Correct: 0
✕ Incorrect: 17
Average Score: 0 %



Question 19 of 329

Question Difficulty: Easy

15 years old girl is complaining of swelling of the face, hands and feet along with diffuse abdominal pain. Her father gave a history of recurrent episodes since he was 3 years old. Family history reveals a history of similar episodes in the mother.

Examination shows edema of the face, hands, lips and tongue. Chest auscultation shows widespread wheezes and stridor.

What is the management of choice?

○ **Hydrocortisone and adrenalin**
○ **Chlorpheniramine**
○ **C1-INH concentrate**
● **Danazol**
○ **Aminocaproic acid**

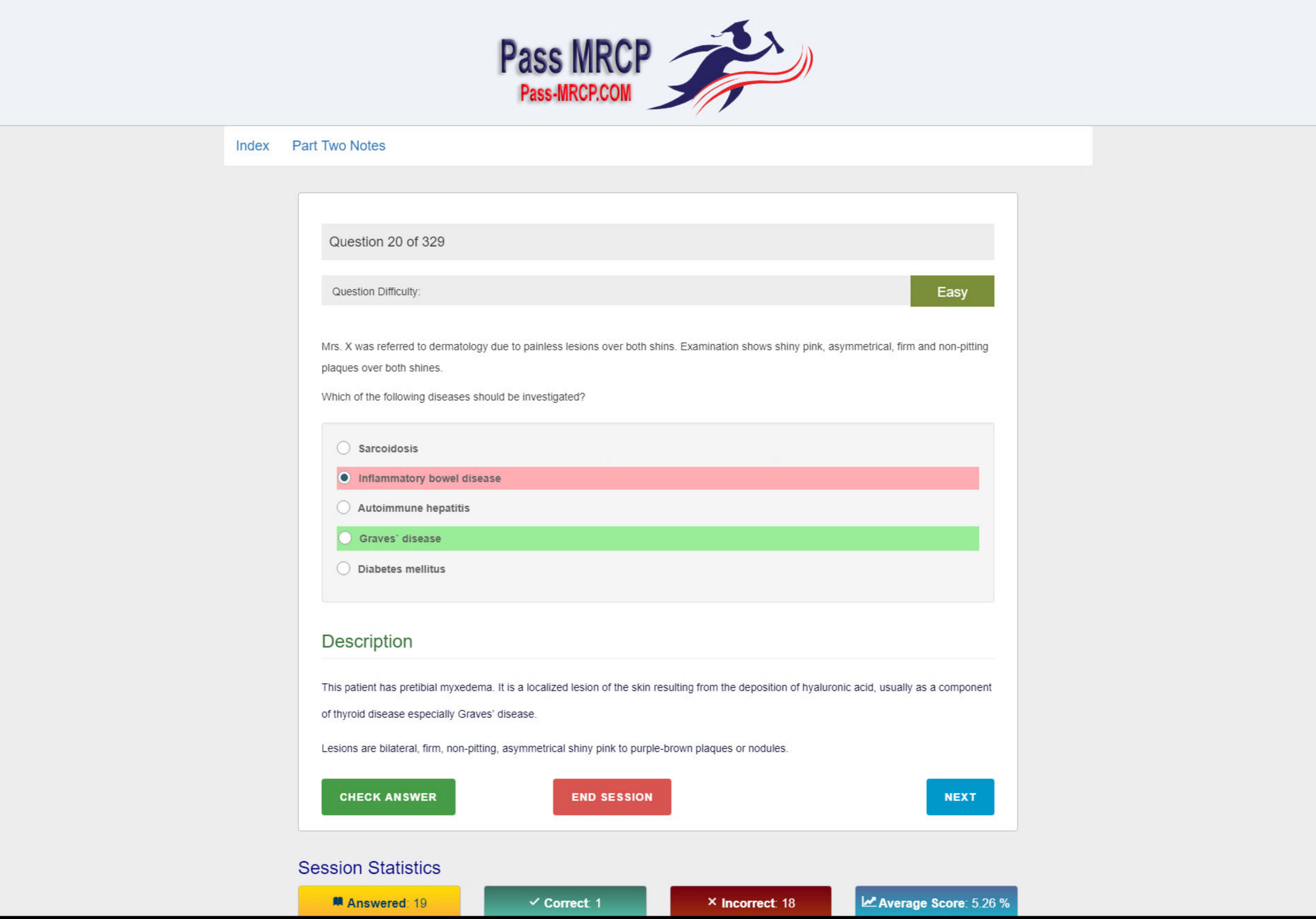
## Description

This patient is complaining of hereditary angioedema. It is an autosomal dominant condition associated with low plasma levels of the complement 1 inhibitor (C1-INH) protein. It is manifested by non-inflammatory swelling of the skin and mucous membranes. The prominent sites include:

- Larynx and tongue causing laryngeal edema and upper airway obstruction
- Abdominal organs causing vomiting, diarrhea or paroxysmal colicky pain that can mimic appendicitis
- Subcutaneous tissues causing edema of the face, hands, arms, legs, genitals and buttocks

C1-INH concentrate, selective bradykinin B2 receptor antagonist and kallikrein inhibitor are of choice during attacks. Danazol is given for prophylaxis.

## Session Statistics



Question 20 of 329

Question Difficulty: **Easy**

Mrs. X was referred to dermatology due to painless lesions over both shins. Examination shows shiny pink, asymmetrical, firm and non-pitting plaques over both shines.

Which of the following diseases should be investigated?

- ○ **Sarcoidosis**
- ● **Inflammatory bowel disease**
- ○ **Autoimmune hepatitis**
- ○ **Graves` disease**
- ○ **Diabetes mellitus**

## Description

This patient has pretibial myxedema. It is a localized lesion of the skin resulting from the deposition of hyaluronic acid, usually as a component of thyroid disease especially Graves' disease.

Lesions are bilateral, firm, non-pitting, asymmetrical shiny pink to purple-brown plaques or nodules.

Session Statistics

**Answered**: 19
**Correct**: 1
**Incorrect**: 18
**Average Score**: 5.26 %

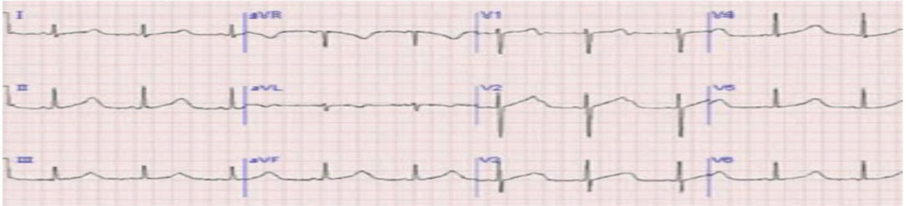
Question 21 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to coma and seizures which started 4 hours ago. His wife reported he may have committed suicide as she found an empty drug bottle beside the bed.

Examination shows Glasgow coma score (GCS) of 12/15, pulse of 130/min and her blood pressure of 100/60 mmHg. His skin was hot and dry his pupils were dilated. His arms and legs show jerky movements. His ECG is shown in the image. Investigations show:

| | | |
|---|---|---|
| Leukocyte count | 8 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 220 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | 13.5-17.5 g/dL |
| Serum creatinine | 99 mmol/L | (53-106 mmol/L) |
| Bilirubin | 18 µmol/L | (2-17 µmol/L) |
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4 mmol/L | (3.5-5.0 mmol/L) |
| pH | 7.3 | (7.35-7.45) |
| PCO 2 | 4.1 kPa | (4.4-5.9 kPa) |



What is the management of choice?

○ Oral activated charcoal

○ Hemoperfusion

○ Amiodarone

○ IV sodium bicarbonate

● IV flumazenil

## Description

This patient committed suicide by tricyclic antidepressants. Overdose signs and symptoms include:

- Antimuscarinic symptoms as dry mouth, dry nose, blurry vision, constipation, urinary retention and increased body temperature
- Confusion, agitation, and headache
- Cognitive and/or memory impairment
- Hallucinations and seizures
- Arrhythmia and prolongation of the QRS complex and the QT intervals as in the above ECG

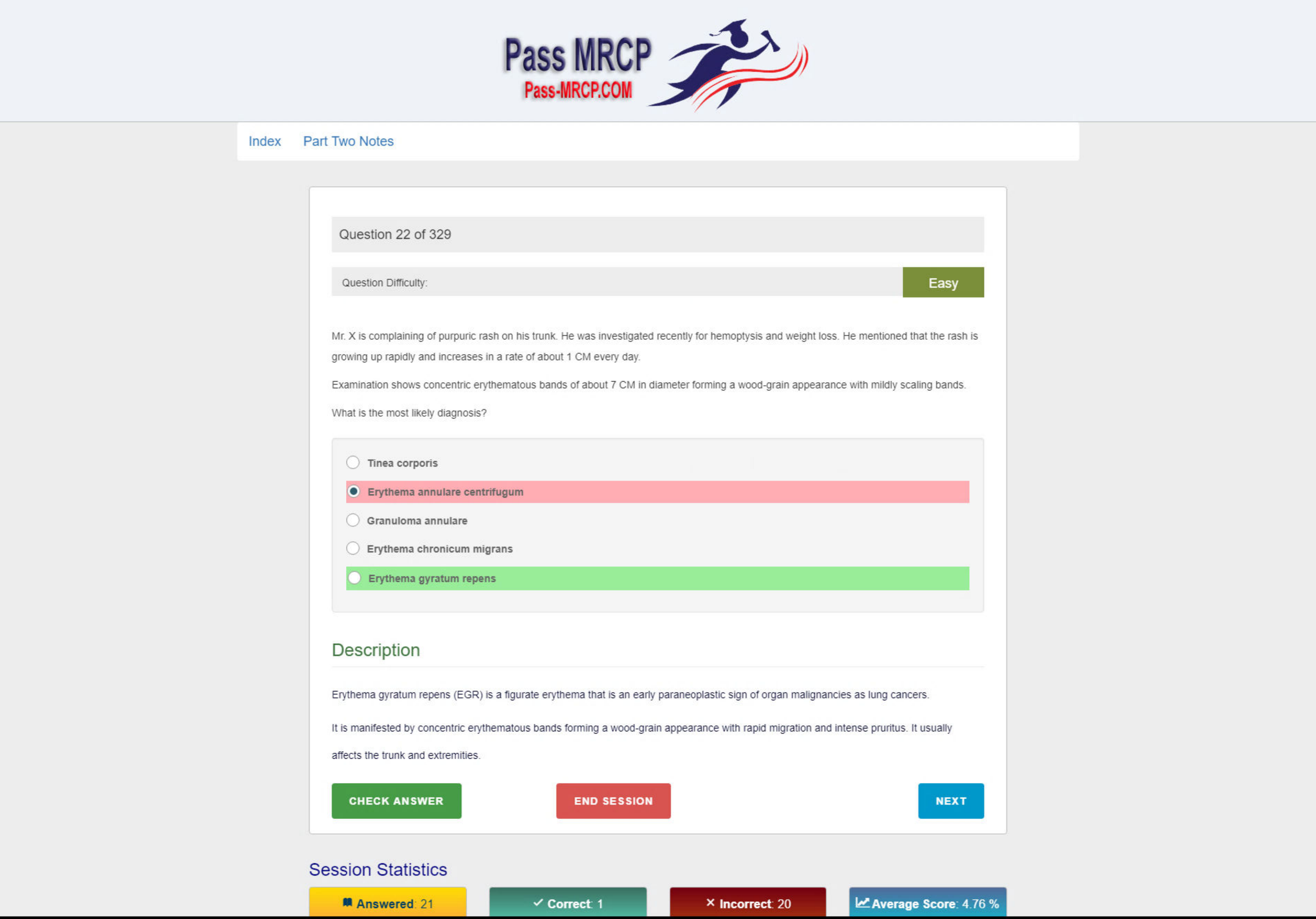
Management is by:

- Activated charcoal lavage which adsorbs the drug in the gastrointestinal tract in the first hour of toxicity
- Intensive care unit admission with continuous ECG monitoring
- IV sodium bicarbonate is of choice if arrhythmia develops, phenytoin and magnesium are alternatives
- Hemodialysis or hemoperfusion for severe cases

CHECK ANSWER END SESSION NEXT

## Session Statistics

Answered: 20 ✓ Correct: 1 ✕ Incorrect: 19 Average Score: 5 %



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Question 22 of 329

Question Difficulty: **Easy**

Mr. X is complaining of purpuric rash on his trunk. He was investigated recently for hemoptysis and weight loss. He mentioned that the rash is growing up rapidly and increases in a rate of about 1 CM every day.

Examination shows concentric erythematous bands of about 7 CM in diameter forming a wood-grain appearance with mildly scaling bands.

What is the most likely diagnosis?

- ○ **Tinea corporis**
- ● **Erythema annulare centrifugum**
- ○ **Granuloma annulare**
- ○ **Erythema chronicum migrans**
- ○ **Erythema gyratum repens**

## Description

Erythema gyratum repens (EGR) is a figurate erythema that is an early paraneoplastic sign of organ malignancies as lung cancers.

It is manifested by concentric erythematous bands forming a wood-grain appearance with rapid migration and intense pruritus. It usually affects the trunk and extremities.

## Session Statistics

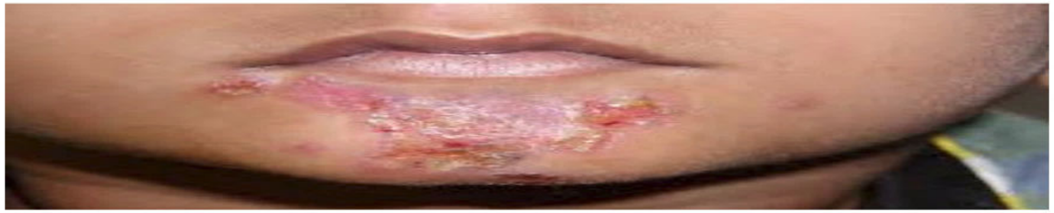
**Answered**: 21
✓ **Correct**: 1
✕ **Incorrect**: 20
**Average Score**: 4.76 %

Question 23 of 329

Question Difficulty: **Hard**

12 years old boy is complaining of painless facial lesion. His mother reported he had sore throat 5 days ago and his fever subsided 3 days ago.

Examination shows honey-colored crusts with a moist erythematous base on his lower lip as in the image. There are some vesicles covering the crusts and surrounding the lesion.



What is the most likely diagnosis?

● **Erysipelas**

○ **Impetigo**

○ **Herpes simplex infection**

○ **Atopic dermatitis**

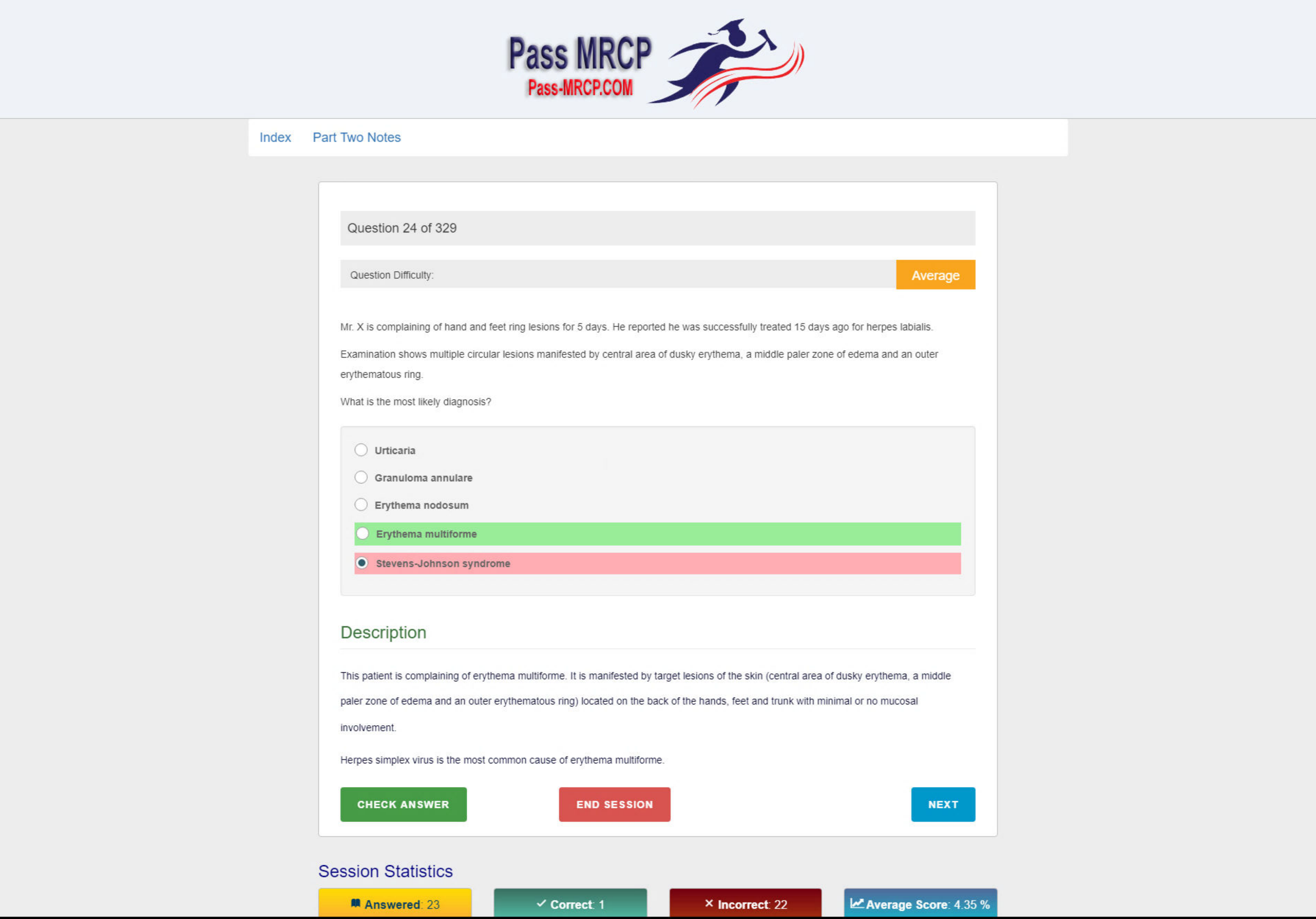
○ **Herpes zoster infection**

## Description

Impetigo is acute, highly contagious infection of the superficial layers of the epidermis is primarily caused by Streptococcus pyogenes or Staphylococcus aureus. It is manifested by multiple coalescing lesions on the face (perioral, perinasal) and extremities. Types include:

- Non-bullous impetigo lesions are small vesicles or pustules that rupture and become a honey-colored crust with a moist erythematous base
- Bullous impetigo lesions are fragile thin-roofed, flaccid and transparent bullae with a clear, yellow fluid, once ruptured, they leave a rim of scale around an erythematous with no crust

**CHECK ANSWER** **END SESSION** **NEXT**



Question 24 of 329

Question Difficulty: Average

Mr. X is complaining of hand and feet ring lesions for 5 days. He reported he was successfully treated 15 days ago for herpes labialis.

Examination shows multiple circular lesions manifested by central area of dusky erythema, a middle paler zone of edema and an outer erythematous ring.

What is the most likely diagnosis?

- ○ **Urticaria**
- ○ **Granuloma annulare**
- ○ **Erythema nodosum**
- ○ **Erythema multiforme**
- ● **Stevens-Johnson syndrome**

## Description

This patient is complaining of erythema multiforme. It is manifested by target lesions of the skin (central area of dusky erythema, a middle paler zone of edema and an outer erythematous ring) located on the back of the hands, feet and trunk with minimal or no mucosal involvement.

Herpes simplex virus is the most common cause of erythema multiforme.

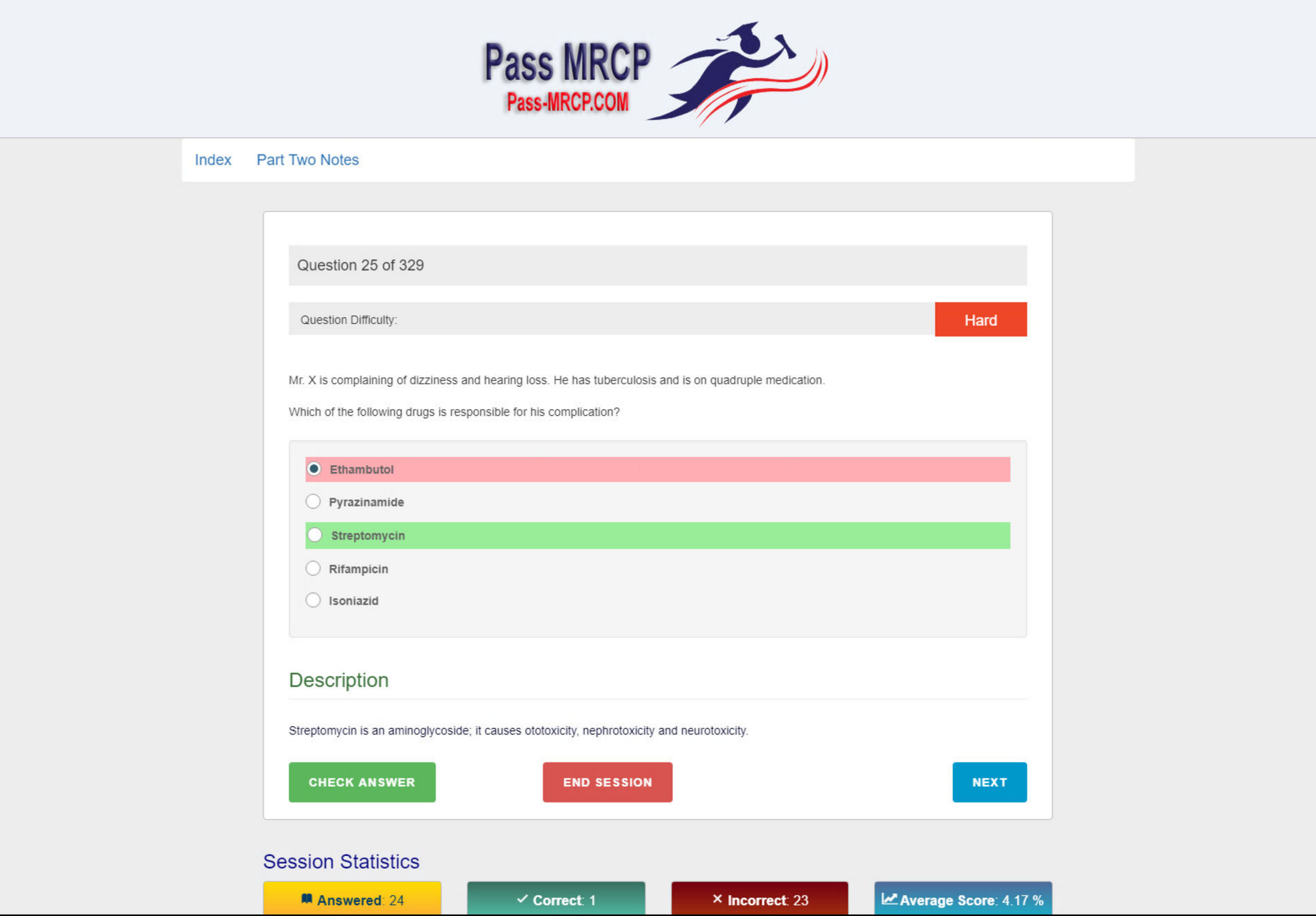
## Session Statistics

**Answered**: 23

✓ **Correct**: 1

× **Incorrect**: 22

**Average Score**: 4.35 %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Question 25 of 329

Question Difficulty: Hard

Mr. X is complaining of dizziness and hearing loss. He has tuberculosis and is on quadruple medication.

Which of the following drugs is responsible for his complication?

- ● **Ethambutol**
- ○ **Pyrazinamide**
- ○ **Streptomycin**
- ○ **Rifampicin**
- ○ **Isoniazid**

## Description

Streptomycin is an aminoglycoside; it causes ototoxicity, nephrotoxicity and neurotoxicity.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

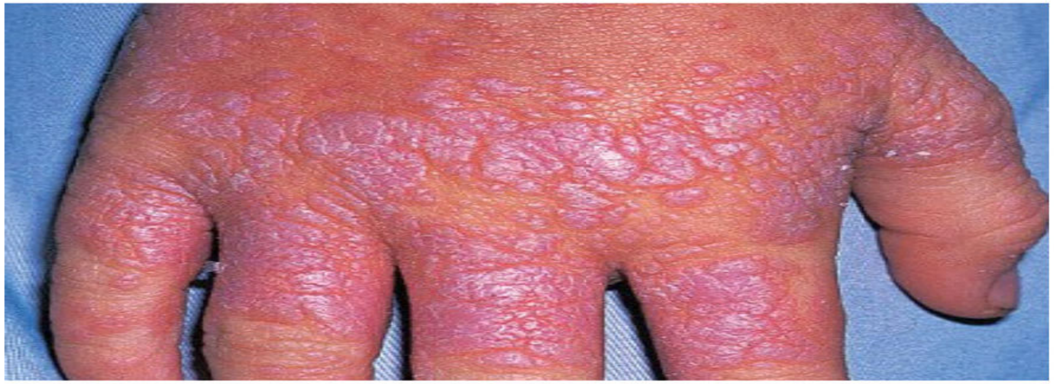
**Answered**: 24
✓ **Correct**: 1
✕ **Incorrect**: 23
**Average Score**: 4.17 %

Question 26 of 329

Question Difficulty: **Average**

Mr. X is complaining of itching rashes is his hands that started 2 weeks ago. He also noted a patch of hair loss on his scalp. He is known to be a carrier of HCV.

Examination shows papular shiny rashes with white lines and vesicles on the dorsum of his hands as in the image. His nails shows ridging and onycholysis. His scalp shows a patch of alopecia measures 3 cm and the base is covered with scales.



What is the most likely diagnosis?

○ **Angiomata**

● **Cutaneous tuberculosis infection**

○ **Keloid**

○ **Lichen planus**

○ **Kaposi sarcoma**

## Description

Lichen planus is a cell-mediated immune response of unknown origin. It is manifested by:

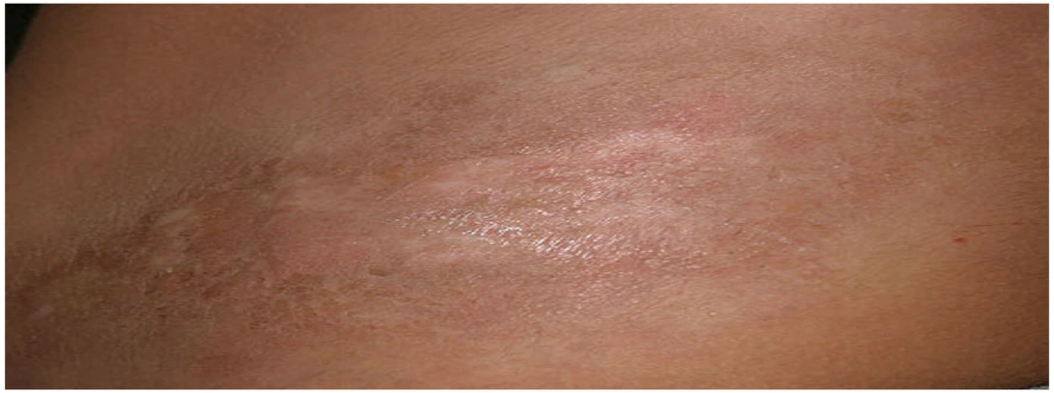
- Itchy, papular, flat-topped and shiny rash overlying network of fine white lines (Wickham striae) which may produce vesicles on sun exposed areas
- Oral and mucus membranes lesions are white or gray streaks forming a linear or reticular pattern on a violaceous background
- Nail longitudinal grooving and ridging, subungual hyperkeratosis and onycholysis
- Scarring alopecia

Question 27 of 329

Question Difficulty: **Average**

20 years Miss X is complaining of a hard patch of skin on her left thigh for 5 weeks. She also reported knee pain started at the onset of the rash.

Examination shows a very firm and slightly indurated pale area with erythematous border of skin on her upper thigh measuring 5 centimeters as shown in the image. The center of the lesion shows atrophic, glazed appearance with loss of sweat glands and hair follicles. There inguinal lymphadenopathy.



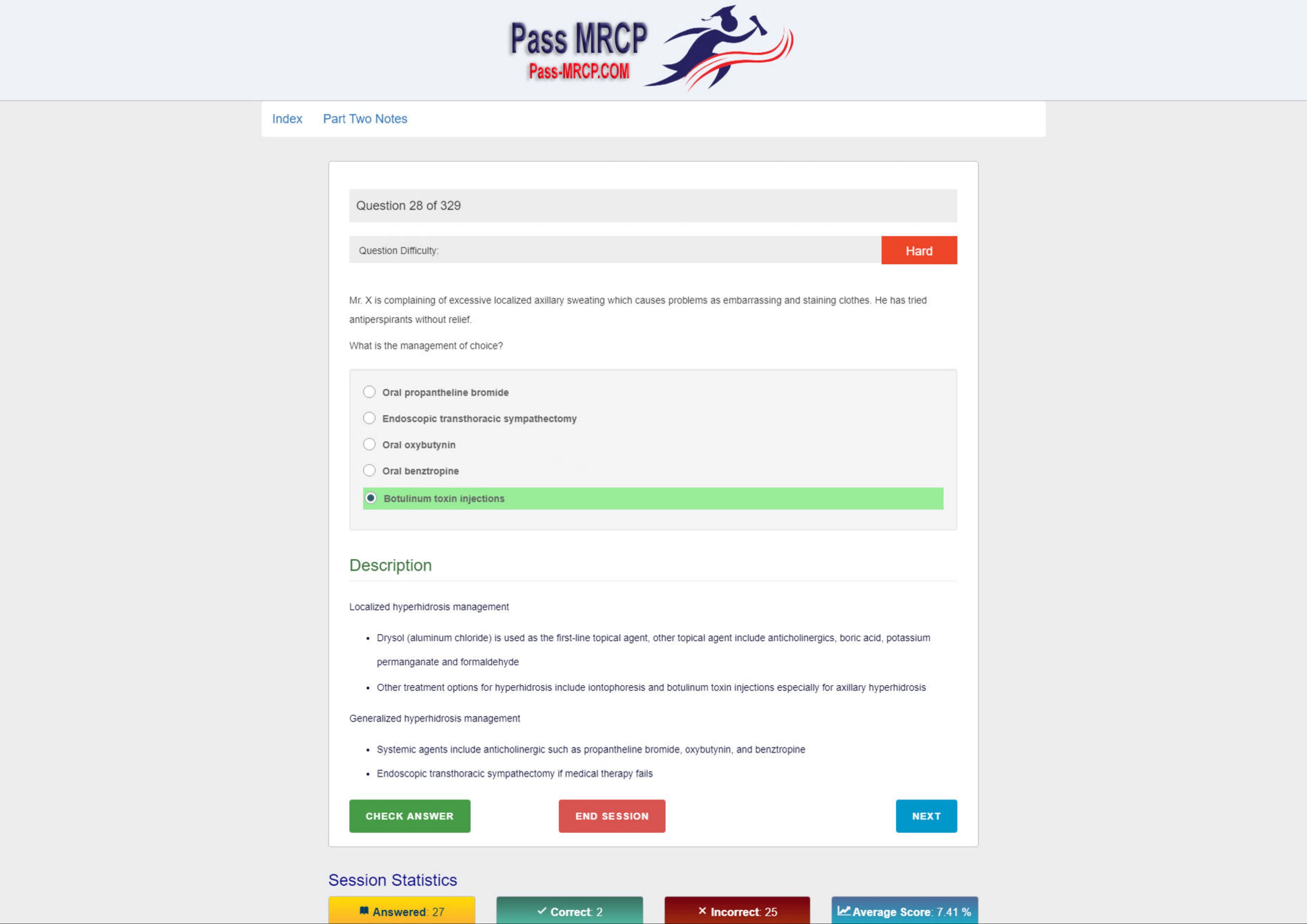
What is the most likely diagnosis?

- ○ **Pityriasis rosea**
- ○ **Pityriasis versicolor**
- ○ **Leprosy**
- ● **Morphea**
- ○ **Dermatomyositis**

## Description

Morphea (localized scleroderma) is a disorder characterized by excessive collagen deposition leading to thickening of the dermis, subcutaneous tissues, or both. It is manifested by:

- A very firm, white or violaceous patch of skin on any part, but more commonly on the thighs, trunk and upper arms
- Later morphea lesions have a well-demarcated red or violet peripheral edge, and then the lesion itself becomes very firm with an atrophic glazed surface appearance with loss of sweat glands and hair follicles
- Extra-cutaneous manifestations as fever, lymphadenopathy, arthralgia, fatigue, central nervous system involvement
- Unlike systemic sclerosis, morphea lacks features such as sclerodactyly, Raynaud phenomenon, nail-fold capillary changes,



Question 28 of 329

Question Difficulty: **Hard**

Mr. X is complaining of excessive localized axillary sweating which causes problems as embarrassing and staining clothes. He has tried antiperspirants without relief.

What is the management of choice?

○ **Oral propantheline bromide**
○ **Endoscopic transthoracic sympathectomy**
○ **Oral oxybutynin**
○ **Oral benztropine**
● **Botulinum toxin injections**

## Description

Localized hyperhidrosis management

- Drysol (aluminum chloride) is used as the first-line topical agent, other topical agent include anticholinergics, boric acid, potassium permanganate and formaldehyde
- Other treatment options for hyperhidrosis include iontophoresis and botulinum toxin injections especially for axillary hyperhidrosis

Generalized hyperhidrosis management

- Systemic agents include anticholinergic such as propantheline bromide, oxybutynin, and benztropine
- Endoscopic transthoracic sympathectomy if medical therapy fails

## Session Statistics

**Answered**: 27
✓ **Correct**: 2
✕ **Incorrect**: 25
**Average Score**: 7.41 %

Question 29 of 329

Question Difficulty: **Average**

Mrs. X was found unconscious and sweating in her room. Examination shows fever of 385 C, pulse 108 per min, BP 130/70 mmHg and respiratory rate 30 per min. Her ABG shows:

| | | |
|---|---|---|
| pH | 7.2 | (7.35-7.45) |
| PO 2 | 16 kPa | (10.0-14.0 kPa) |
| PCO 2 | 3 kPa | (4.4-5.9 kPa) |
| Serum bicarbonate | 12 mmol/L | (22-28 mmol/L) |

What is the management of choice?

○ **Forced alkaline diuresis**
○ **Ipecac syrup**
○ **IV sodium bicarbonate**
○ **Activated charcoal**
● **Acidification of urine**

What is the management of choice?

○ **Forced alkaline diuresis**
○ **Ipecac syrup**
○ **IV sodium bicarbonate**
○ **Activated charcoal**
● **Acidification of urine**

## Description

This patient is complaining of salicylate Toxicity. It is manifested by:

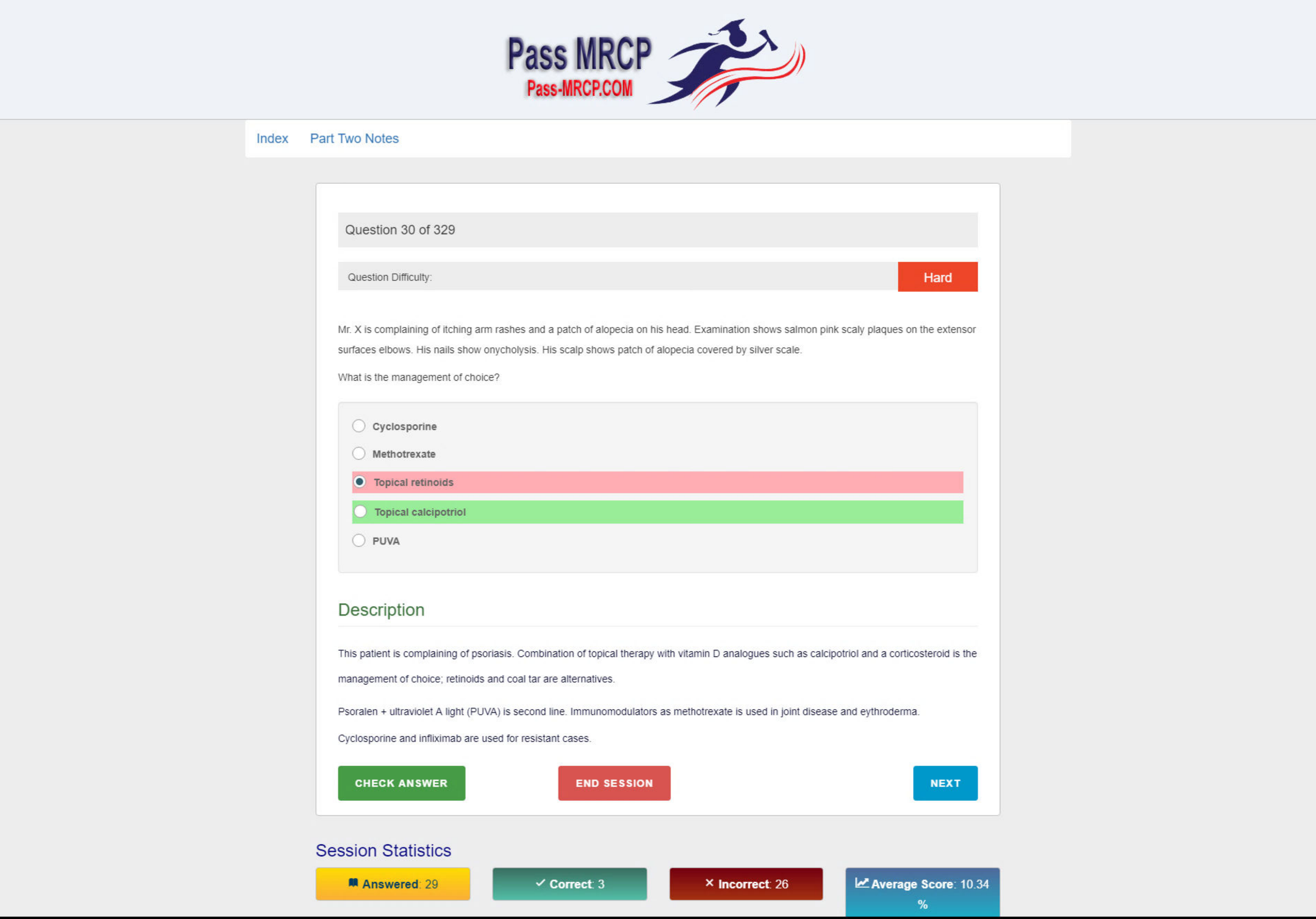
- Abdominal pain, nausea and vomiting
- Tinnitus
- Hyperpyrexia
- Hyperventilation
- Hypokalemia
- Hypoglycemia
- Early respiratory alkalosis followed by metabolic acidosis with high anion gap
- Hallucinations
- Confusion, seizure, cerebral edema, and coma

Gastric decontamination with activated charcoal is used within 1 hour of ingestion. Alkalinization of the urine enhances elimination of aspirin in the urine is the management of choice.

CHECK ANSWER END SESSION NEXT

## Session Statistics

**Answered**: 28 ✓ **Correct**: 3 ✕ **Incorrect**: 25 **Average Score**: 10.71 %



Question 30 of 329

Question Difficulty: **Hard**

Mr. X is complaining of itching arm rashes and a patch of alopecia on his head. Examination shows salmon pink scaly plaques on the extensor surfaces elbows. His nails show onycholysis. His scalp shows patch of alopecia covered by silver scale.

What is the management of choice?

- ○ **Cyclosporine**
- ○ **Methotrexate**
- ● **Topical retinoids**
- ○ **Topical calcipotriol**
- ○ **PUVA**

## Description

This patient is complaining of psoriasis. Combination of topical therapy with vitamin D analogues such as calcipotriol and a corticosteroid is the management of choice; retinoids and coal tar are alternatives.

Psoralen + ultraviolet A light (PUVA) is second line. Immunomodulators as methotrexate is used in joint disease and eythroderma.

Cyclosporine and infliximab are used for resistant cases.

Session Statistics

**Answered**: 29

✓ **Correct**: 3

✕ **Incorrect**: 26

**Average Score**: 10.34 %

Question 31 of 329

Question Difficulty: **Average**

Mr. X was admitted to the ED as it was suspected he committed suicide by unknown substance. Examination shows lower limb ataxia, dysarthria and nystagmus. He has 4 limbs tremors and fasciculation.

His ECG shows QT interval prolongation. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 μmol/L | (2-17 μmol/L) |
| ALT | 22 U/L | (8-20 U/L) |
| Serum creatinine | 160 mmol/L | (53-106 mmol/L) |
| Serum sodium | 138 mmol/L | (136-145 mmol/L) |
| Serum potassium | 5.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 10 mmol/L | (22-28 mmol/L) |
| Serum calcium | 3.1 mmol/L | (2.1-2.8 mmol/L) |
| pH | 7.3 | (7.35-7.45) |

What is the most likely ingested substance?

○ **Paracetamol**
○ **Paraquat**
● **Organophosphate**
○ **Ethylene glycol**
○ **Cocaine**

## Description

Ethylene glycol poisoning is caused by the ingestion of ethylene glycol, the primary ingredient in automotive antifreeze. Signs and symptoms include:

Stage 1 (30 minutes to 12 hours)

- Nausea and vomiting
- Headache and confusion
- Incoordination of muscle movements, slurred speech, seizures and abnormal eye movements

Stage 2 (12 to 36 hours)

- Arrhythmia, QT interval prolongation, and congestive heart failure
- Hyperventilation
- Metabolic acidosis with high anion gap
- Hypercalcemia causing muscle spasms

Stage 3 (24 to 72 hours)

- Renal failure due to acute tubular necrosis

CHECK ANSWER END SESSION NEXT

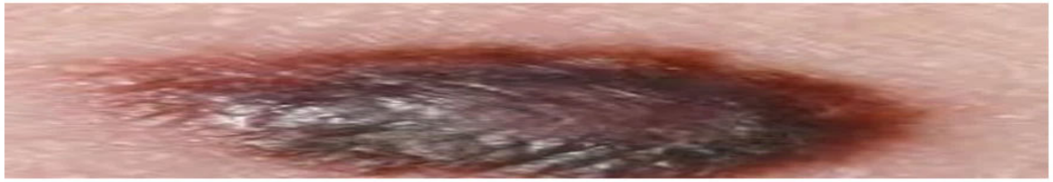
## Session Statistics

**Answered**: 30 ✓ **Correct**: 3 ✕ **Incorrect**: 27 **Average Score**: 10 %

Question 32 of 329

Question Difficulty: **Hard**

Mr. X is complaining of a painless black lesion on his face that progressed over the past month. Examination shows 7 mm irregular nodule on his face shown in the image. There are enlarged cervical lymph nodes.



What is the most likely diagnosis?

- ● **Tick typhus**
- ○ **Leishmaniasis**
- ○ **Lentigo maligna melanoma**
- ○ **Anthrax**
- ○ **Nodular melanoma**

- ● **Tick typhus**
- ○ **Leishmaniasis**
- ○ **Lentigo maligna melanoma**
- ○ **Anthrax**
- ○ **Nodular melanoma**

## Description

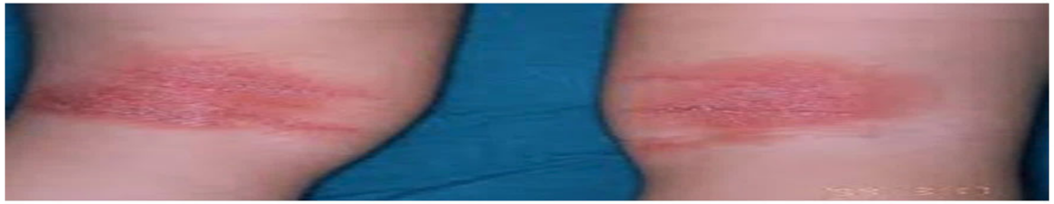
Nodular melanomas account for 10-15% of cases of malignant melanomas. It is very aggressive tumor with relatively little melanin pigment.

CHECK ANSWER END SESSION NEXT

Question 33 of 329

Question Difficulty: **Easy**

8 years old boy is complaining of scaly skin itching rashes. He has a long history of allergic rhinitis. Examination shows dry and scaly red skin covering the flexural surface of the forearm, hips and axilla as sown in the image.



What is the management of choice?

● **Oral chlorpheniramine**
○ **Oral loratadine**
○ **Topical calcineurin**
○ **Topical steroids**
○ **Oral steroids**

● **Oral chlorpheniramine**
○ **Oral loratadine**
○ **Topical calcineurin**
○ **Topical steroids**
○ **Oral steroids**

## Description

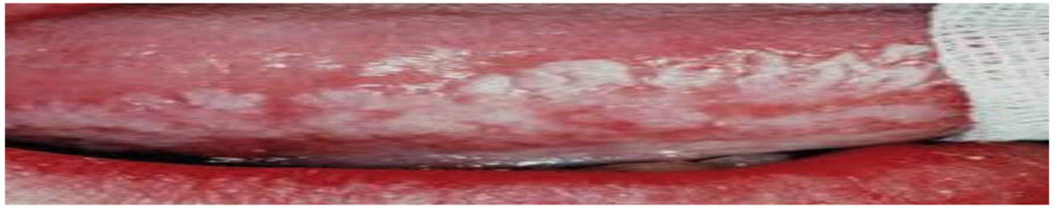
This boy is complaining of atopic dermatitis (Eczema). It is a pruritic disease of unknown origin that usually starts in early infancy. It is manifested by dry and scaly skin that spans the entire body that is intensely itchy red. Diagnostic criteria for atopic dermatitis include an itchy skin condition in the last 12 months plus three or more of:

- Onset below age 2 years
- History of flexural involvement
- Visible flexural dermatitis
- History of generally dry skin
- Personal history of other atopic disease (asthma and rhinitis)

Question 34 of 329

Question Difficulty: **Hard**

Mr. X With a history of HIV is complaining of abnormal painless lesions on his mouth. Examination shows lesions in the image located at the site of the tongue. On probing with a swab they cannot be dislodged.



What is the most likely diagnosis?

○ **Squamous cell carcinoma**
● **Oral candidiasis**
○ **Multiple aphthous ulcers**
○ **Oral hairy leukoplakia**
○ **Lichen planus**

What is the most likely diagnosis?

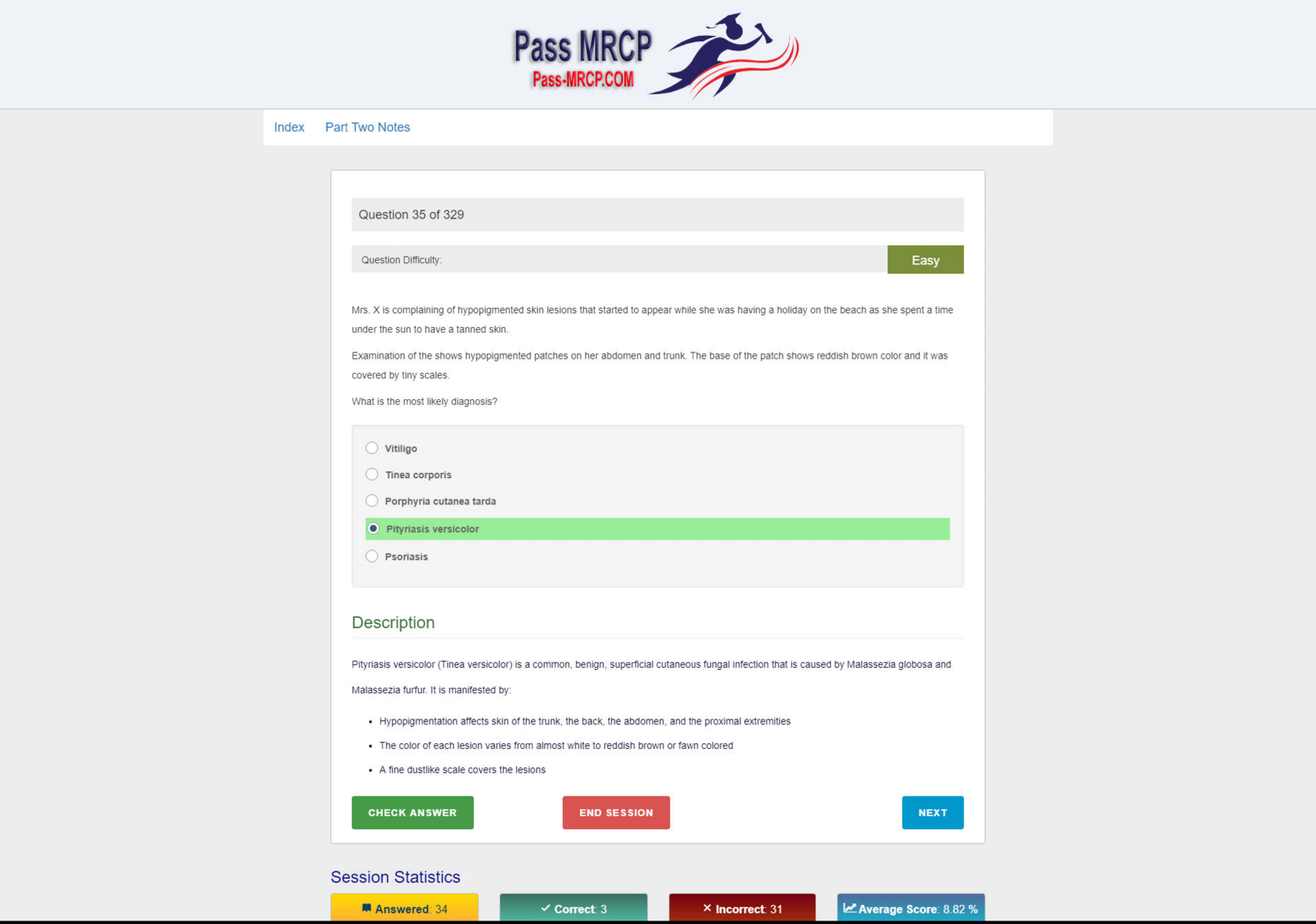
○ **Squamous cell carcinoma**
● **Oral candidiasis**
○ **Multiple aphthous ulcers**
○ **Oral hairy leukoplakia**
○ **Lichen planus**

## Description

Oral hairy leukoplakia (OHL) is a disease of the mucosa. It is commonly associated with HIV. It is manifested by:

- Unilateral or bilateral non-painful white lesions can be seen on the margins, dorsal or ventral surfaces of the tongue, or on the buccal mucosa
- The lesions may vary in appearance from smooth, flat, small lesions to irregular "hairy" or "feathery" lesions with prominent folds or projections

Oral candidiasis is manifested by white patches on the tongue, mouth and throat with acidic, salty or bitter taste that can be dislodged easily



Question 35 of 329

Question Difficulty: **Easy**

Mrs. X is complaining of hypopigmented skin lesions that started to appear while she was having a holiday on the beach as she spent a time under the sun to have a tanned skin.

Examination of the shows hypopigmented patches on her abdomen and trunk. The base of the patch shows reddish brown color and it was covered by tiny scales.

What is the most likely diagnosis?

○ **Vitiligo**
○ **Tinea corporis**
○ **Porphyria cutanea tarda**
● **Pityriasis versicolor**
○ **Psoriasis**

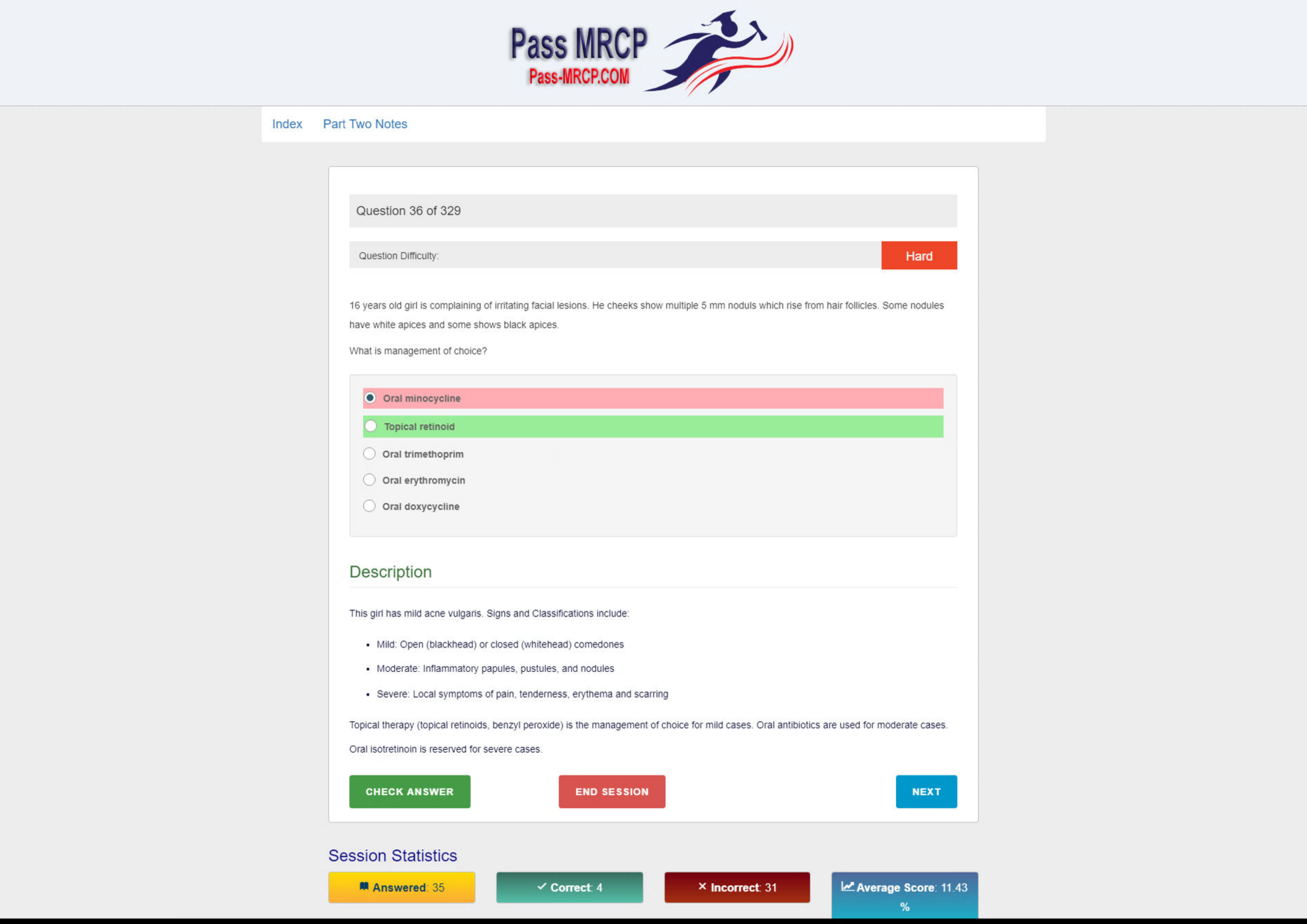
## Description

Pityriasis versicolor (Tinea versicolor) is a common, benign, superficial cutaneous fungal infection that is caused by Malassezia globosa and Malassezia furfur. It is manifested by:

- Hypopigmentation affects skin of the trunk, the back, the abdomen, and the proximal extremities
- The color of each lesion varies from almost white to reddish brown or fawn colored
- A fine dustlike scale covers the lesions

## Session Statistics

**Answered**: 34
✓ **Correct**: 3
✕ **Incorrect**: 31
**Average Score**: 8.82 %



Question 36 of 329

Question Difficulty: Hard

16 years old girl is complaining of irritating facial lesions. He cheeks show multiple 5 mm noduls which rise from hair follicles. Some nodules have white apices and some shows black apices.

What is management of choice?

● Oral minocycline
○ Topical retinoid
○ Oral trimethoprim
○ Oral erythromycin
○ Oral doxycycline

## Description

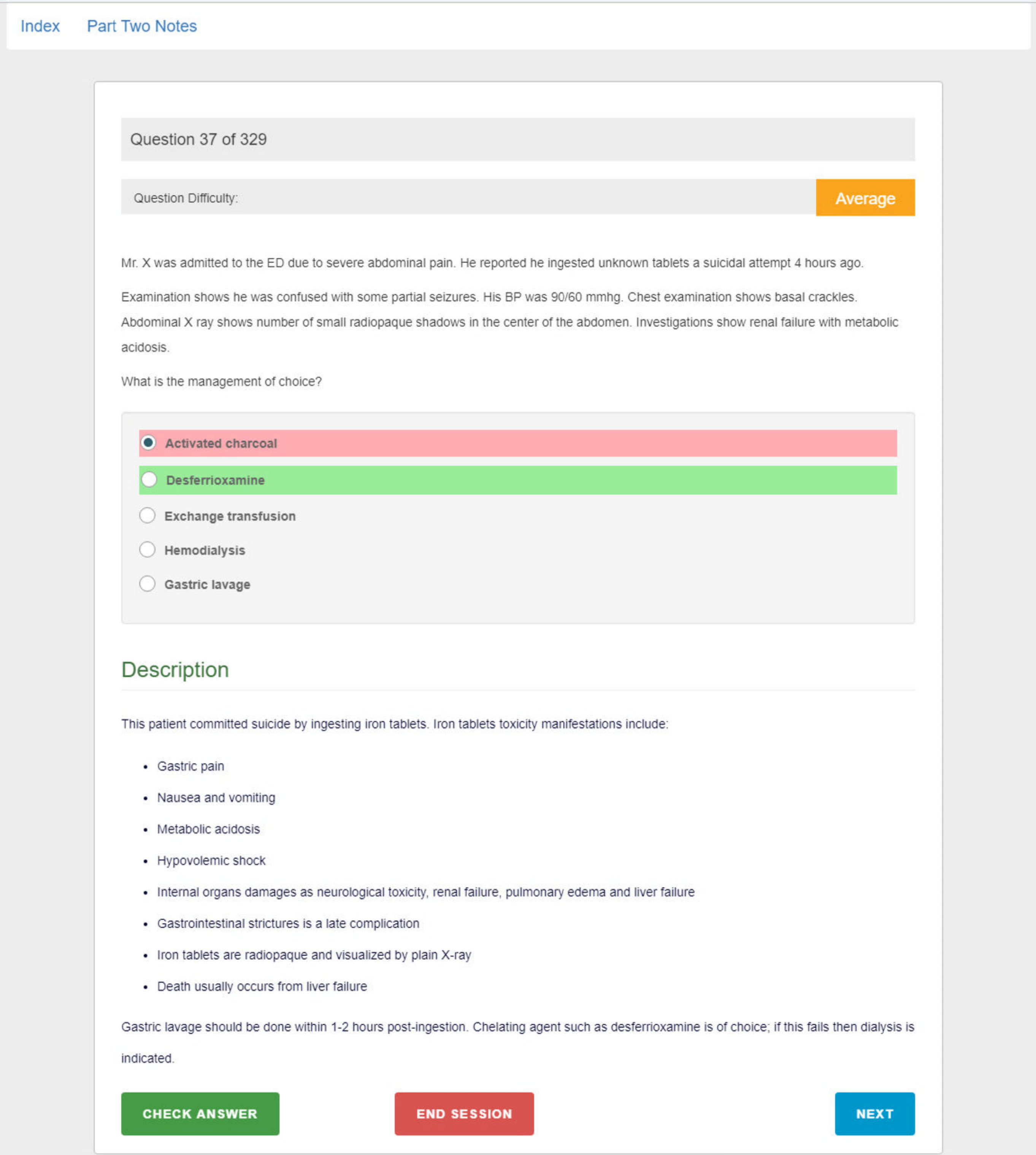
This girl has mild acne vulgaris. Signs and Classifications include:

- Mild: Open (blackhead) or closed (whitehead) comedones
- Moderate: Inflammatory papules, pustules, and nodules
- Severe: Local symptoms of pain, tenderness, erythema and scarring

Topical therapy (topical retinoids, benzyl peroxide) is the management of choice for mild cases. Oral antibiotics are used for moderate cases. Oral isotretinoin is reserved for severe cases.

Session Statistics

Answered: 35
✓ Correct: 4
✕ Incorrect: 31
Average Score: 11.43 %



Question 37 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to severe abdominal pain. He reported he ingested unknown tablets a suicidal attempt 4 hours ago.

Examination shows he was confused with some partial seizures. His BP was 90/60 mmhg. Chest examination shows basal crackles. Abdominal X ray shows number of small radiopaque shadows in the center of the abdomen. Investigations show renal failure with metabolic acidosis.

What is the management of choice?

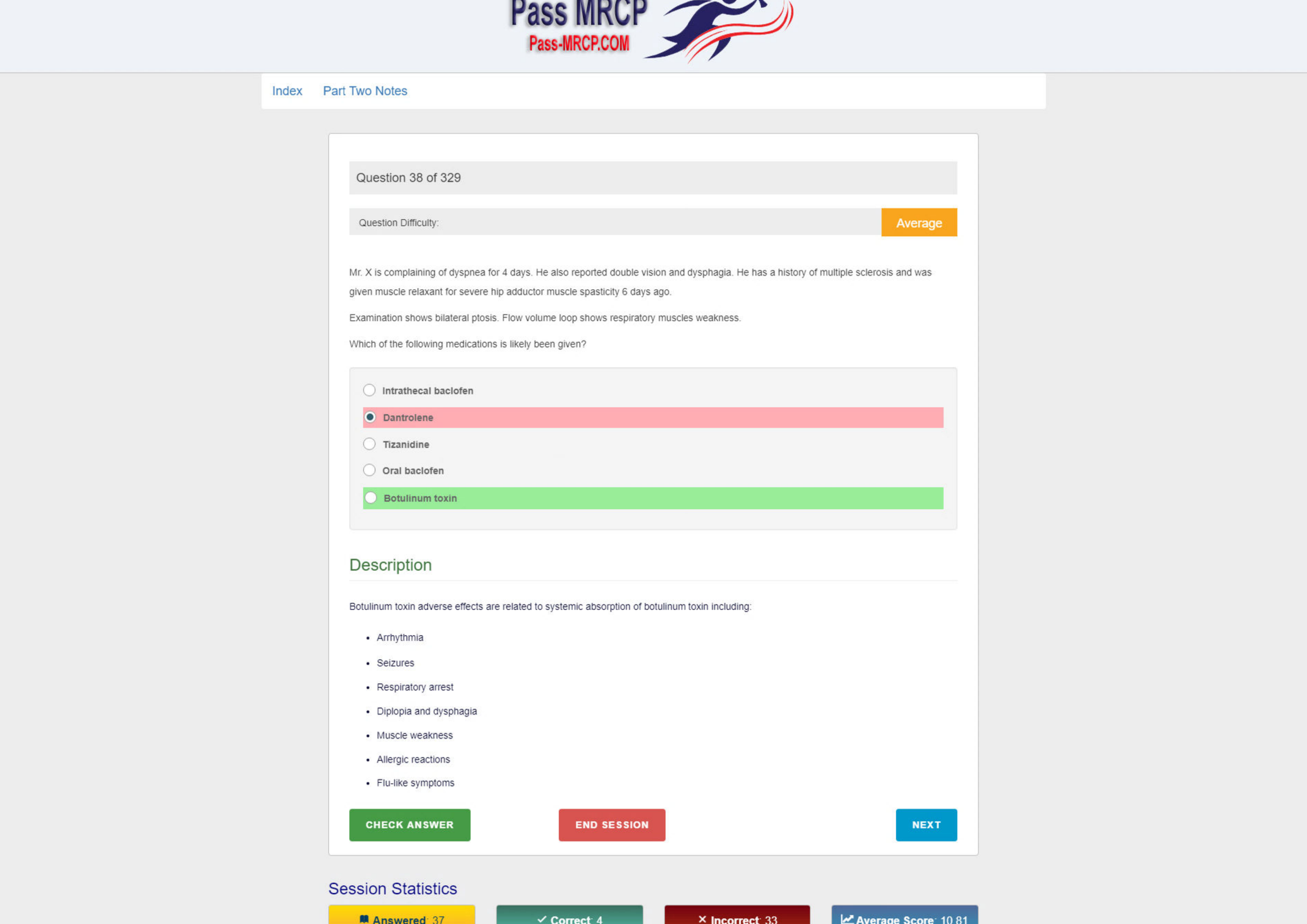
● **Activated charcoal**
○ **Desferrioxamine**
○ **Exchange transfusion**
○ **Hemodialysis**
○ **Gastric lavage**

## Description

This patient committed suicide by ingesting iron tablets. Iron tablets toxicity manifestations include:

- Gastric pain
- Nausea and vomiting
- Metabolic acidosis
- Hypovolemic shock
- Internal organs damages as neurological toxicity, renal failure, pulmonary edema and liver failure
- Gastrointestinal strictures is a late complication
- Iron tablets are radiopaque and visualized by plain X-ray
- Death usually occurs from liver failure

Gastric lavage should be done within 1-2 hours post-ingestion. Chelating agent such as desferrioxamine is of choice; if this fails then dialysis is indicated.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Question Difficulty: Average

Mr. X is complaining of dyspnea for 4 days. He also reported double vision and dysphagia. He has a history of multiple sclerosis and was given muscle relaxant for severe hip adductor muscle spasticity 6 days ago.

Examination shows bilateral ptosis. Flow volume loop shows respiratory muscles weakness.

Which of the following medications is likely been given?

○ **Intrathecal baclofen**
● **Dantrolene**
○ **Tizanidine**
○ **Oral baclofen**
○ **Botulinum toxin**

## Description

Botulinum toxin adverse effects are related to systemic absorption of botulinum toxin including:

- Arrhythmia
- Seizures
- Respiratory arrest
- Diplopia and dysphagia
- Muscle weakness
- Allergic reactions
- Flu-like symptoms

CHECK ANSWER
END SESSION
NEXT

Session Statistics

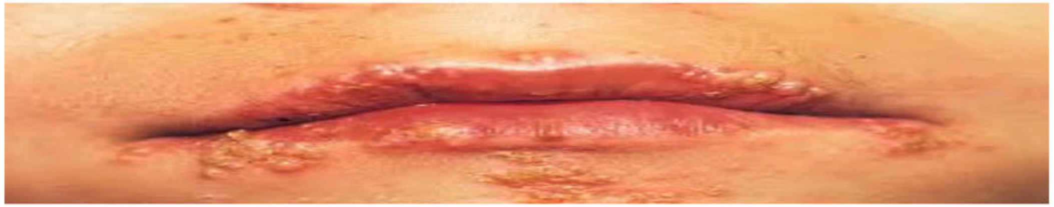
Answered: 37
✓ Correct: 4
✕ Incorrect: 33
Average Score: 10.81

Question 39 of 329

Question Difficulty: **Hard**

12 years old boy is complaining of an itching facial rash below his lower lip for 4 days. He reported the pain is burning and there is tingling on the healthy surrounding skin. He said his began to develop a similar condition.

Examination shows the lower lib shown in the image.



What is the most likely diagnosis?

- ○ HSV-1
- ○ Impetigo
- ○ Cellulitis
- ○ HSV-2
- ● Erysipelas

## Description

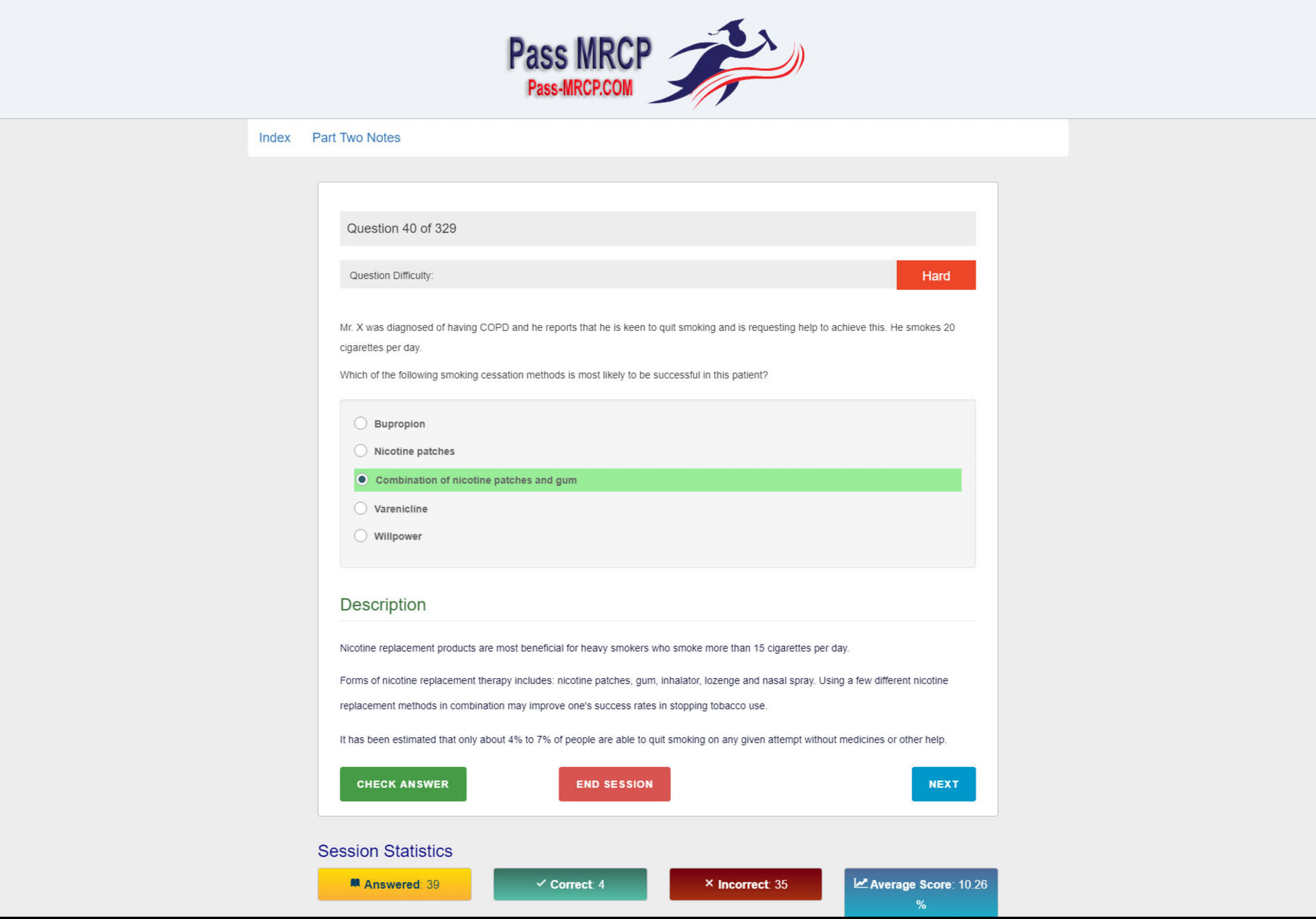
This patient has Herpes labialis (cold sores). It is the most common manifestation of recurrent HSV-1 infection.

It is manifested by a prodrome of pain, burning, and tingling followed by the development of erythematous papules that rapidly develop into tiny, thin-walled, intra-epidermal vesicles that become pustular and ulcerate.

CHECK ANSWER END SESSION NEXT

## Session Statistics

Answered: 38 ✓ Correct: 4 ✗ Incorrect: 34 Average Score: 10.53



Question 40 of 329

Question Difficulty: Hard

Mr. X was diagnosed of having COPD and he reports that he is keen to quit smoking and is requesting help to achieve this. He smokes 20 cigarettes per day.

Which of the following smoking cessation methods is most likely to be successful in this patient?

○ **Bupropion**
○ **Nicotine patches**
● **Combination of nicotine patches and gum**
○ **Varenicline**
○ **Willpower**

## Description

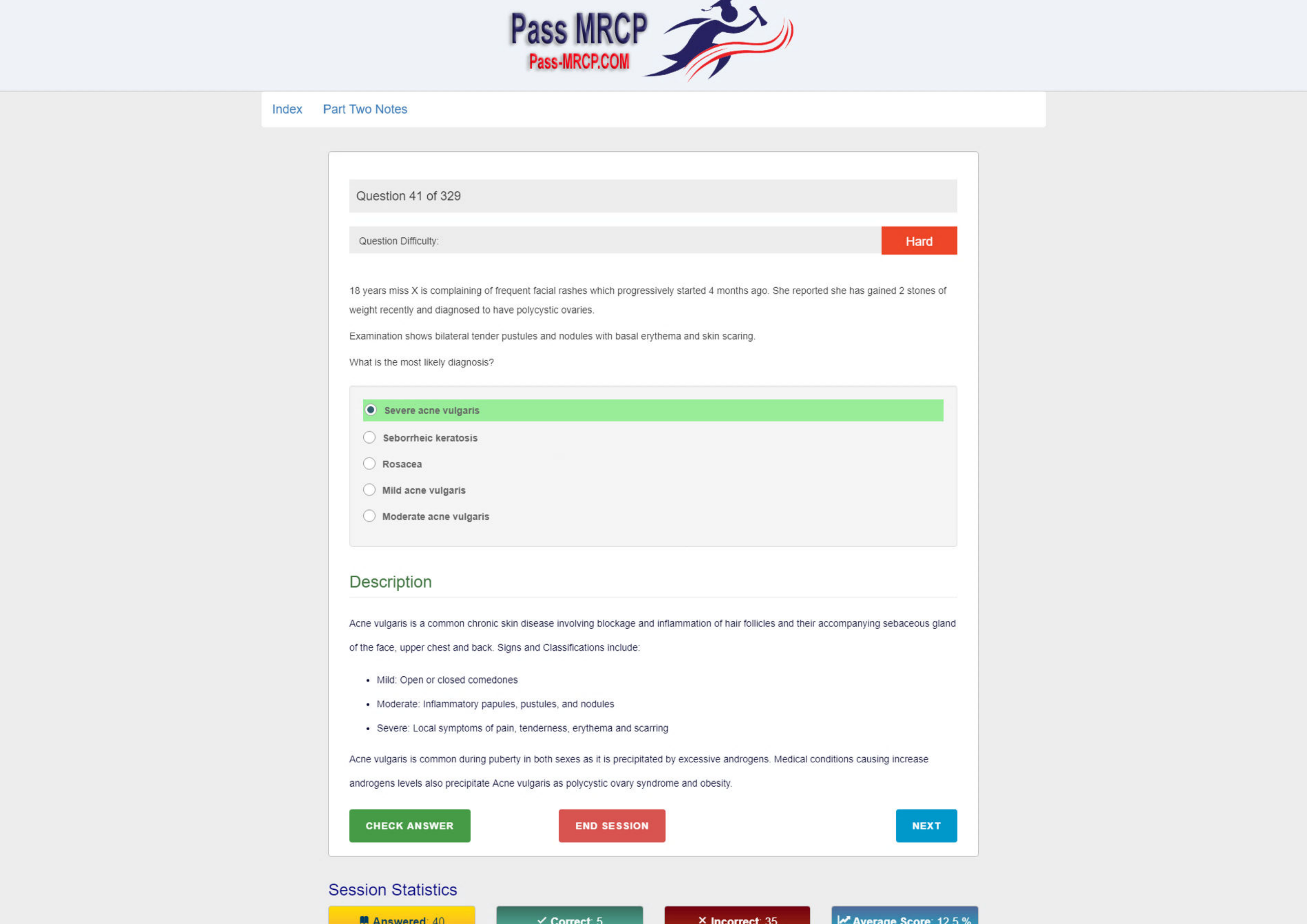
Nicotine replacement products are most beneficial for heavy smokers who smoke more than 15 cigarettes per day.

Forms of nicotine replacement therapy includes: nicotine patches, gum, inhalator, lozenge and nasal spray. Using a few different nicotine replacement methods in combination may improve one's success rates in stopping tobacco use.

It has been estimated that only about 4% to 7% of people are able to quit smoking on any given attempt without medicines or other help.

Session Statistics

**Answered**: 39
✓ **Correct**: 4
✕ **Incorrect**: 35
**Average Score**: 10.26 %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Question 41 of 329

Question Difficulty: Hard

18 years miss X is complaining of frequent facial rashes which progressively started 4 months ago. She reported she has gained 2 stones of weight recently and diagnosed to have polycystic ovaries.

Examination shows bilateral tender pustules and nodules with basal erythema and skin scaring.

What is the most likely diagnosis?

● **Severe acne vulgaris**
○ **Seborrheic keratosis**
○ **Rosacea**
○ **Mild acne vulgaris**
○ **Moderate acne vulgaris**

## Description

Acne vulgaris is a common chronic skin disease involving blockage and inflammation of hair follicles and their accompanying sebaceous gland of the face, upper chest and back. Signs and Classifications include:

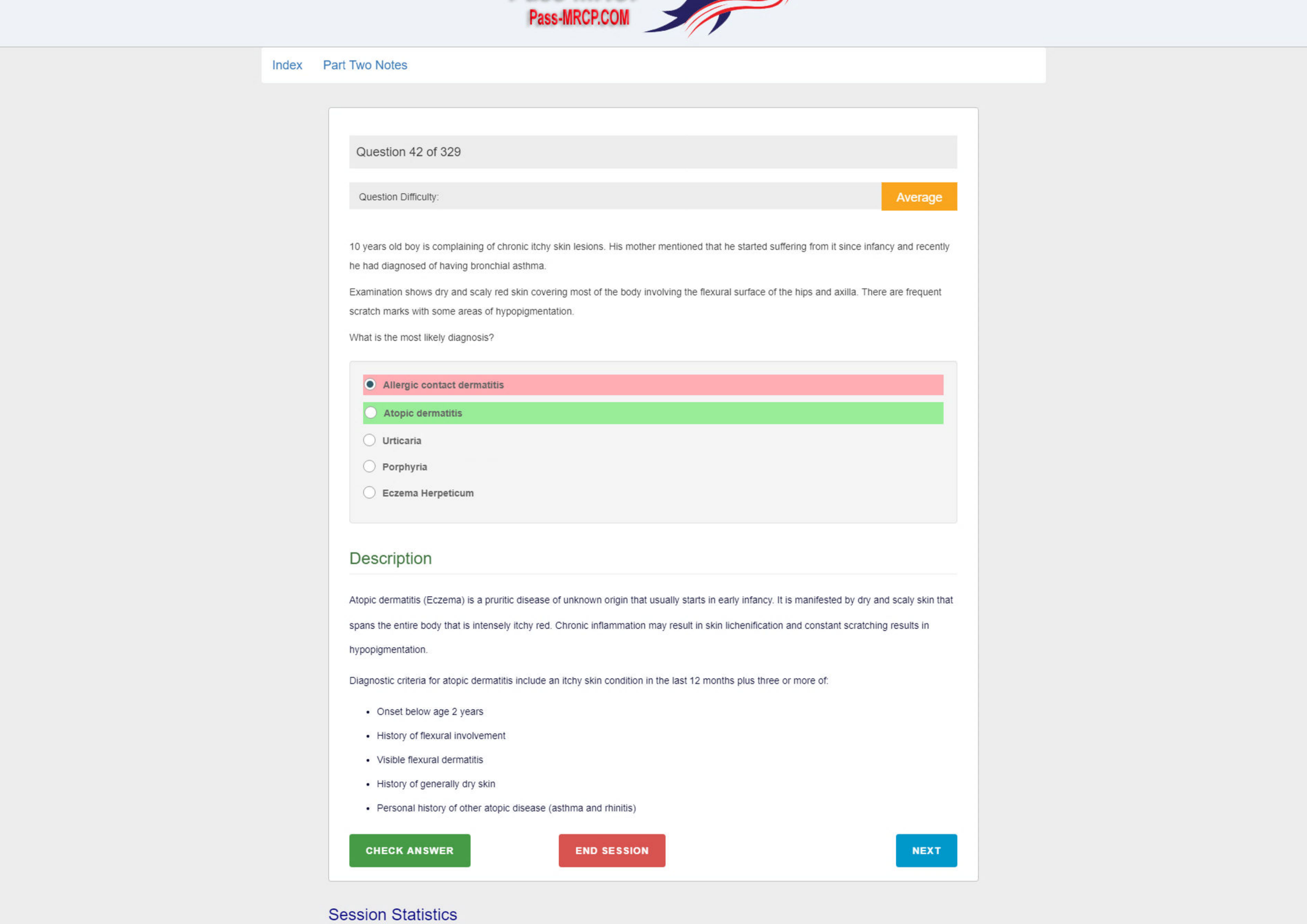
- Mild: Open or closed comedones
- Moderate: Inflammatory papules, pustules, and nodules
- Severe: Local symptoms of pain, tenderness, erythema and scarring

Acne vulgaris is common during puberty in both sexes as it is precipitated by excessive androgens. Medical conditions causing increase androgens levels also precipitate Acne vulgaris as polycystic ovary syndrome and obesity.

CHECK ANSWER
END SESSION
NEXT

Session Statistics

Answered: 40
✓ Correct: 5
✕ Incorrect: 35
Average Score: 12.5 %



Question 42 of 329

Question Difficulty: Average

10 years old boy is complaining of chronic itchy skin lesions. His mother mentioned that he started suffering from it since infancy and recently he had diagnosed of having bronchial asthma.

Examination shows dry and scaly red skin covering most of the body involving the flexural surface of the hips and axilla. There are frequent scratch marks with some areas of hypopigmentation.

What is the most likely diagnosis?

● **Allergic contact dermatitis**

○ **Atopic dermatitis**

○ **Urticaria**

○ **Porphyria**

○ **Eczema Herpeticum**

## Description

Atopic dermatitis (Eczema) is a pruritic disease of unknown origin that usually starts in early infancy. It is manifested by dry and scaly skin that spans the entire body that is intensely itchy red. Chronic inflammation may result in skin lichenification and constant scratching results in hypopigmentation.

Diagnostic criteria for atopic dermatitis include an itchy skin condition in the last 12 months plus three or more of:

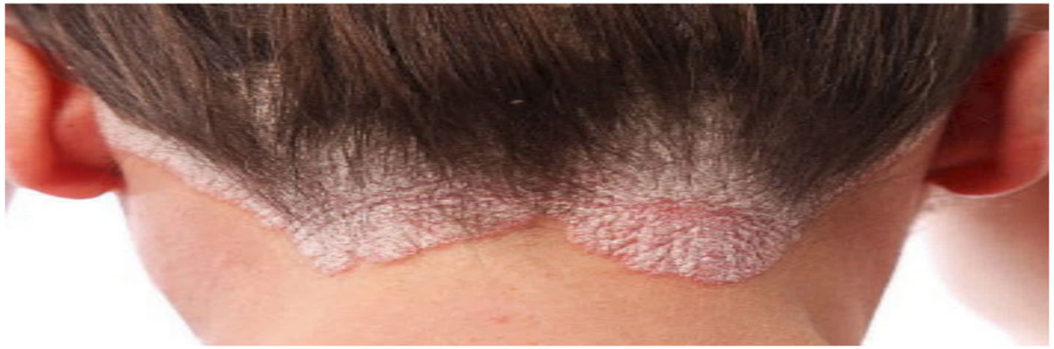
- Onset below age 2 years
- History of flexural involvement
- Visible flexural dermatitis
- History of generally dry skin
- Personal history of other atopic disease (asthma and rhinitis)

Question 43 of 329

Question Difficulty: **Hard**

Mrs. X is complaining that 2 of her children have patches of alopecia in their scalp and eyelashes that started 6 days ago. She also reported mild itching sensations on these patches.

Examination shows multiple erythematous scaly papules as in the image. Some papules are paler than the others. The surrounding hairs appear discolored and brittle.



What is the most likely diagnosis?

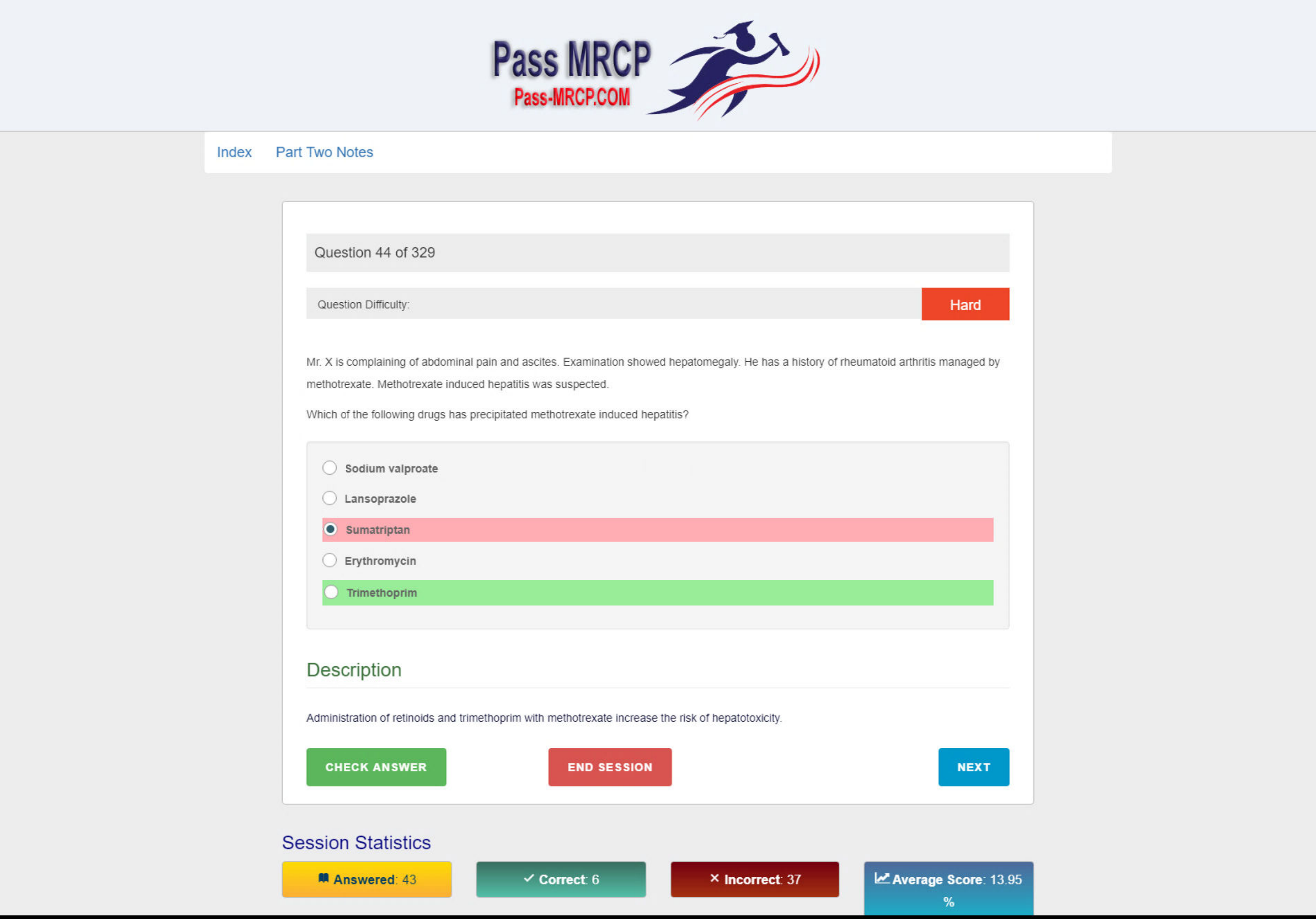
○ **Alopecia areata**
○ **Tinea cruris**
○ **Discoid lupus erythematosus**
○ **Tinea capitis**
● **Psoriasis**

## Description

Tinea capitis is a disease caused by superficial fungal infection of the scalp skin, eyebrows and eyelashes. It is manifested by:

- Small erythematous papule around a hair shaft
- Papule becomes paler and scaly, and the hairs appear discolored, lusterless and brittle
- Pruritus is minimal
- Scarring alopecia

CHECK ANSWER END SESSION NEXT



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Question 44 of 329

Question Difficulty: Hard

Mr. X is complaining of abdominal pain and ascites. Examination showed hepatomegaly. He has a history of rheumatoid arthritis managed by methotrexate. Methotrexate induced hepatitis was suspected.

Which of the following drugs has precipitated methotrexate induced hepatitis?

- ○ Sodium valproate
- ○ Lansoprazole
- ● Sumatriptan
- ○ Erythromycin
- ○ Trimethoprim

## Description

Administration of retinoids and trimethoprim with methotrexate increase the risk of hepatotoxicity.

CHECK ANSWER
END SESSION
NEXT

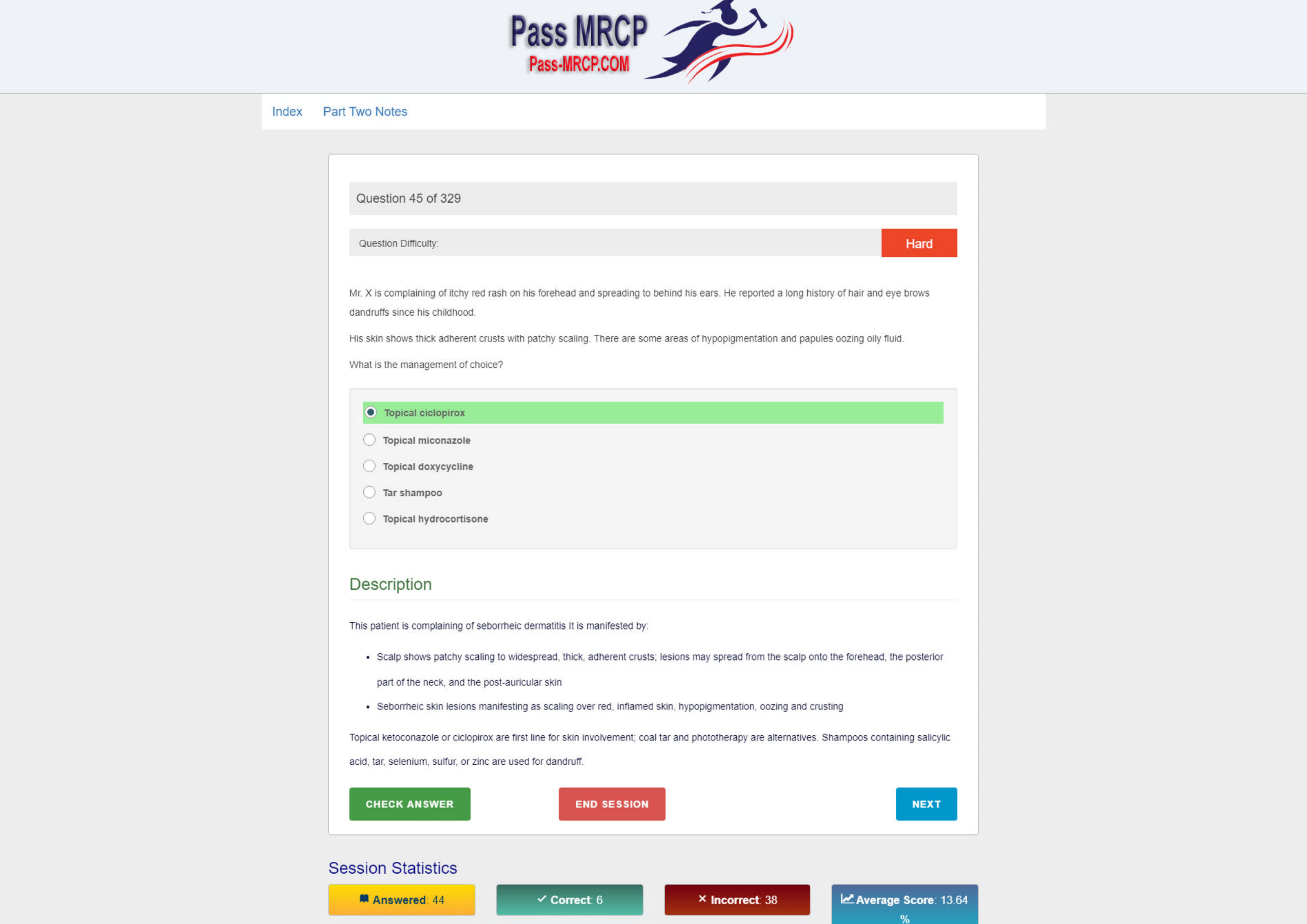
## Session Statistics

Answered: 43

✓ Correct: 6

× Incorrect: 37

Average Score: 13.95 %



Question 45 of 329

Question Difficulty: Hard

Mr. X is complaining of itchy red rash on his forehead and spreading to behind his ears. He reported a long history of hair and eye brows dandruffs since his childhood.

His skin shows thick adherent crusts with patchy scaling. There are some areas of hypopigmentation and papules oozing oily fluid.

What is the management of choice?

● **Topical ciclopirox**

○ **Topical miconazole**

○ **Topical doxycycline**

○ **Tar shampoo**

○ **Topical hydrocortisone**

## Description

This patient is complaining of seborrheic dermatitis It is manifested by:

- Scalp shows patchy scaling to widespread, thick, adherent crusts; lesions may spread from the scalp onto the forehead, the posterior part of the neck, and the post-auricular skin
- Seborrheic skin lesions manifesting as scaling over red, inflamed skin, hypopigmentation, oozing and crusting

Topical ketoconazole or ciclopirox are first line for skin involvement; coal tar and phototherapy are alternatives. Shampoos containing salicylic acid, tar, selenium, sulfur, or zinc are used for dandruff.

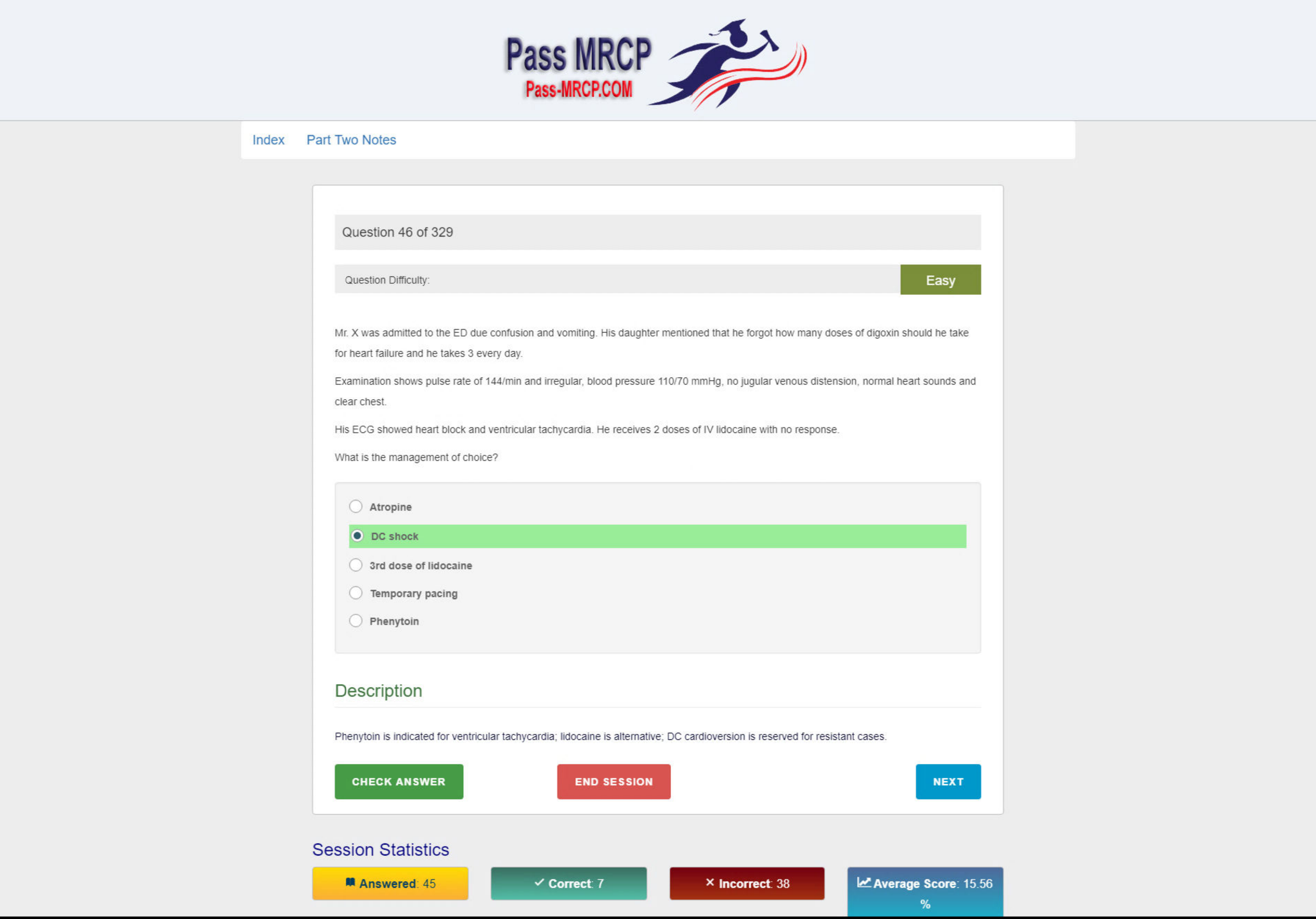
Session Statistics

**Answered**: 44

✓ **Correct**: 6

✕ **Incorrect**: 38

**Average Score**: 13.64 %



Question 46 of 329

Question Difficulty: Easy

Mr. X was admitted to the ED due confusion and vomiting. His daughter mentioned that he forgot how many doses of digoxin should he take for heart failure and he takes 3 every day.

Examination shows pulse rate of 144/min and irregular, blood pressure 110/70 mmHg, no jugular venous distension, normal heart sounds and clear chest.

His ECG showed heart block and ventricular tachycardia. He receives 2 doses of IV lidocaine with no response.

What is the management of choice?

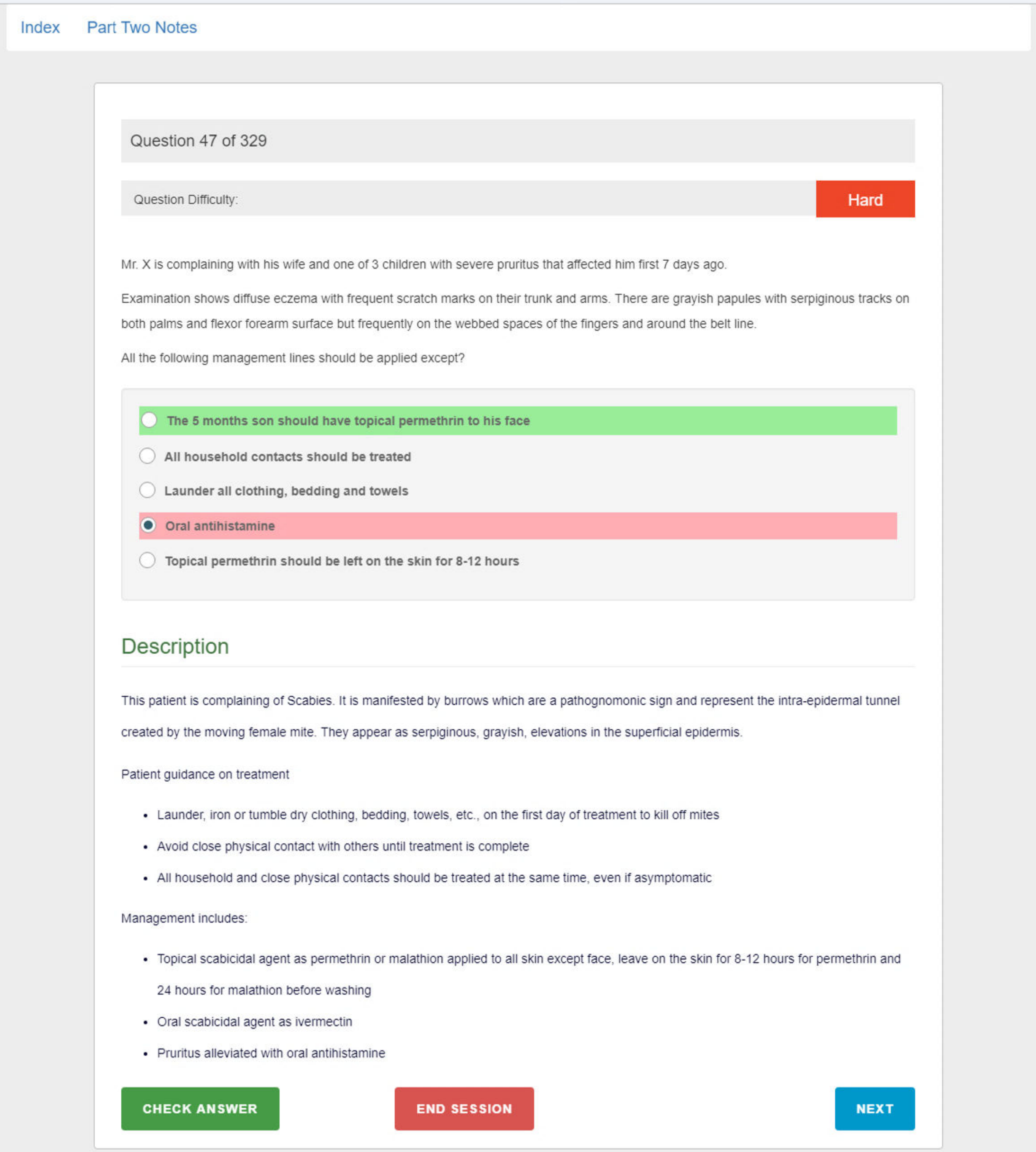
- ○ Atropine
- ● DC shock
- ○ 3rd dose of lidocaine
- ○ Temporary pacing
- ○ Phenytoin

## Description

Phenytoin is indicated for ventricular tachycardia; lidocaine is alternative; DC cardioversion is reserved for resistant cases.

Session Statistics

Answered: 45
✓ Correct: 7
✕ Incorrect: 38
Average Score: 15.56 %



Question 47 of 329

Question Difficulty: Hard

Mr. X is complaining with his wife and one of 3 children with severe pruritus that affected him first 7 days ago.

Examination shows diffuse eczema with frequent scratch marks on their trunk and arms. There are grayish papules with serpiginous tracks on both palms and flexor forearm surface but frequently on the webbed spaces of the fingers and around the belt line.

All the following management lines should be applied except?

○ **The 5 months son should have topical permethrin to his face**

○ **All household contacts should be treated**

○ **Launder all clothing, bedding and towels**

● **Oral antihistamine**

○ **Topical permethrin should be left on the skin for 8-12 hours**

## Description

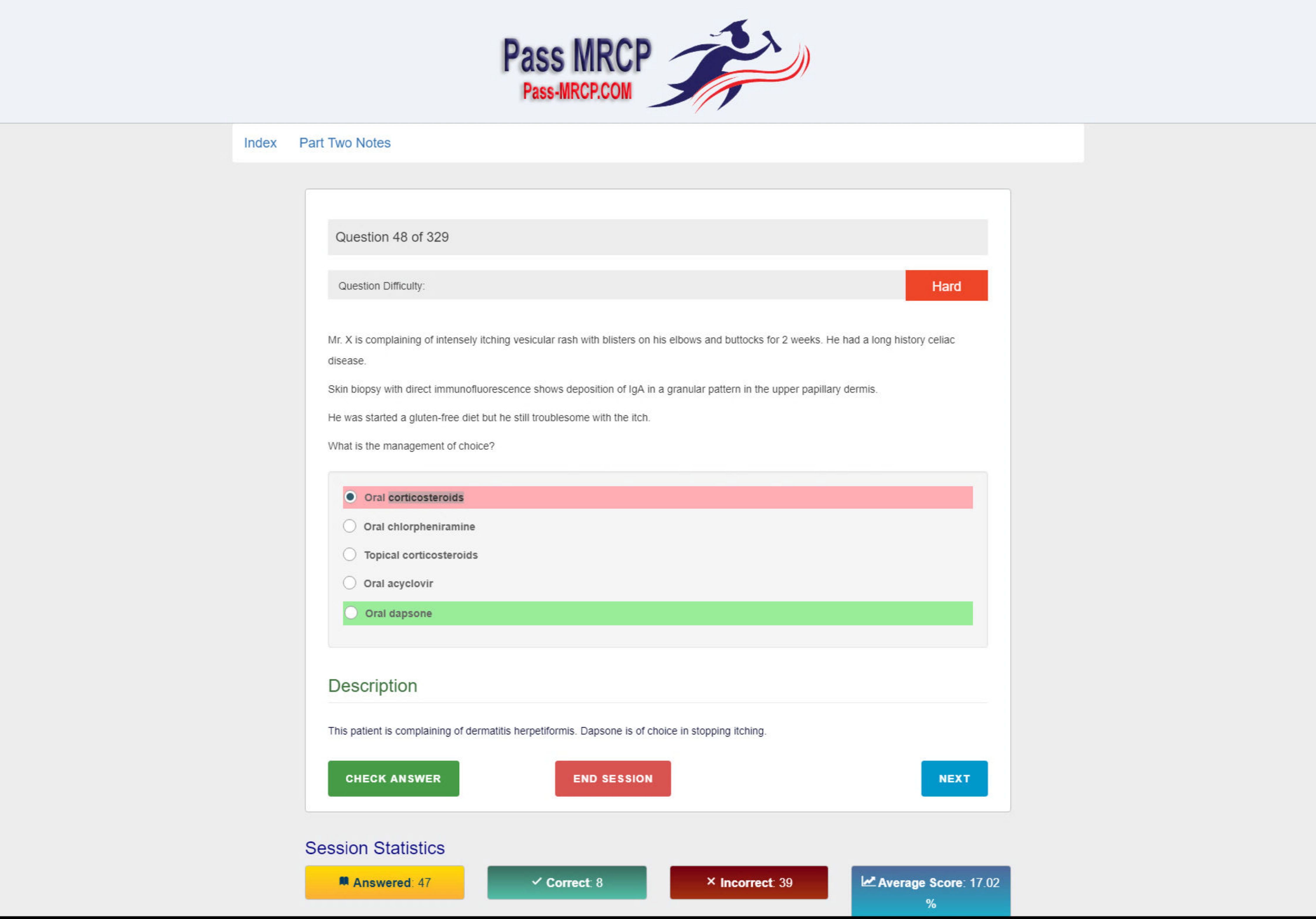
This patient is complaining of Scabies. It is manifested by burrows which are a pathognomonic sign and represent the intra-epidermal tunnel created by the moving female mite. They appear as serpiginous, grayish, elevations in the superficial epidermis.

Patient guidance on treatment

- Launder, iron or tumble dry clothing, bedding, towels, etc., on the first day of treatment to kill off mites
- Avoid close physical contact with others until treatment is complete
- All household and close physical contacts should be treated at the same time, even if asymptomatic

Management includes:

- Topical scabicidal agent as permethrin or malathion applied to all skin except face, leave on the skin for 8-12 hours for permethrin and 24 hours for malathion before washing
- Oral scabicidal agent as ivermectin
- Pruritus alleviated with oral antihistamine



Question 48 of 329

Question Difficulty: Hard

Mr. X is complaining of intensely itching vesicular rash with blisters on his elbows and buttocks for 2 weeks. He had a long history celiac disease.

Skin biopsy with direct immunofluorescence shows deposition of IgA in a granular pattern in the upper papillary dermis.

He was started a gluten-free diet but he still troublesome with the itch.

What is the management of choice?

- ● Oral corticosteroids
- ○ Oral chlorpheniramine
- ○ Topical corticosteroids
- ○ Oral acyclovir
- ○ Oral dapsone

## Description

This patient is complaining of dermatitis herpetiformis. Dapsone is of choice in stopping itching.

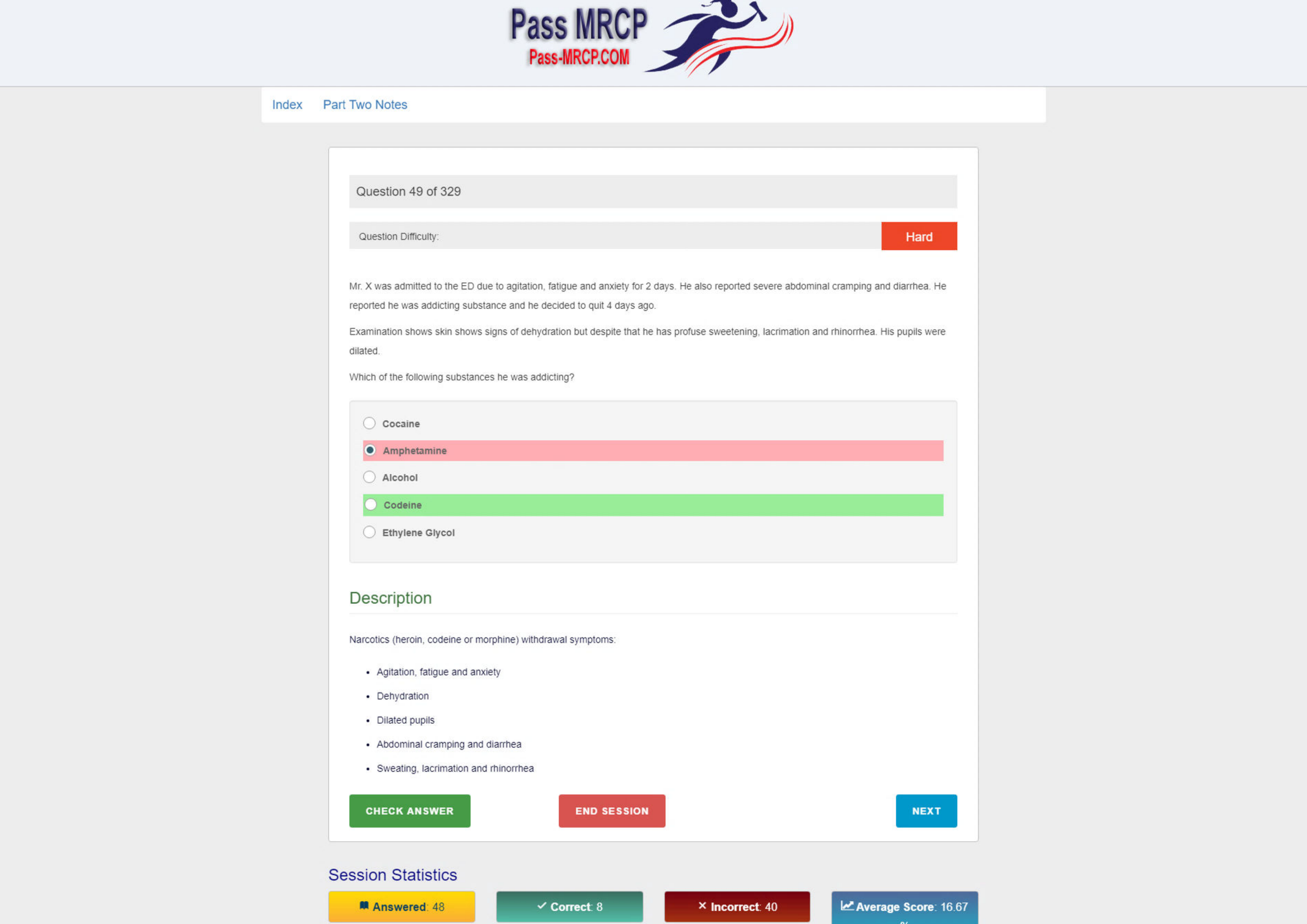
## Session Statistics

Answered: 47

✓ Correct: 8

× Incorrect: 39

Average Score: 17.02 %



Question 49 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED due to agitation, fatigue and anxiety for 2 days. He also reported severe abdominal cramping and diarrhea. He reported he was addicting substance and he decided to quit 4 days ago.

Examination shows skin shows signs of dehydration but despite that he has profuse sweetening, lacrimation and rhinorrhea. His pupils were dilated.

Which of the following substances he was addicting?

○ **Cocaine**
● **Amphetamine**
○ **Alcohol**
○ **Codeine**
○ **Ethylene Glycol**

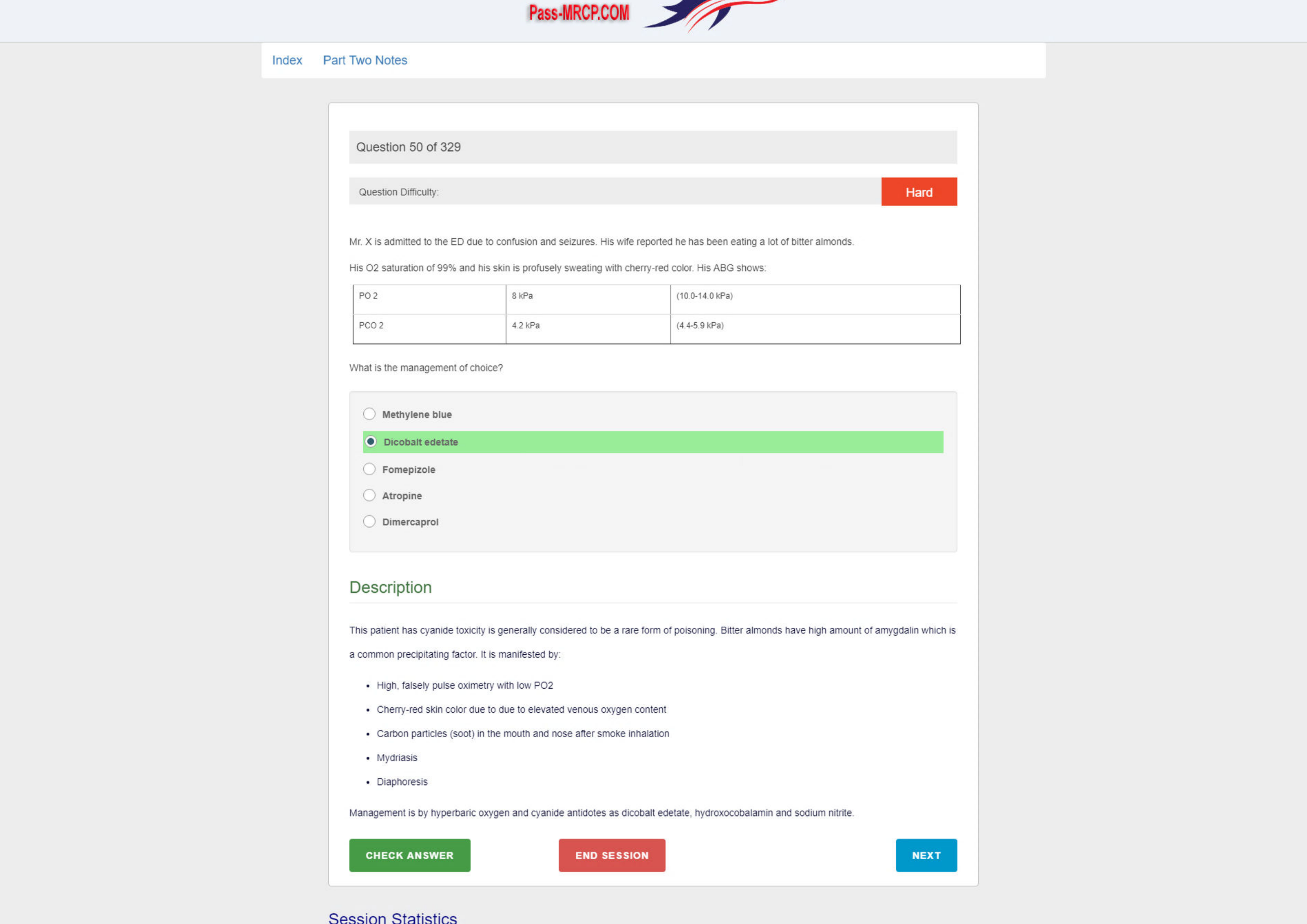
## Description

Narcotics (heroin, codeine or morphine) withdrawal symptoms:

- Agitation, fatigue and anxiety
- Dehydration
- Dilated pupils
- Abdominal cramping and diarrhea
- Sweating, lacrimation and rhinorrhea

## Session Statistics

**Answered**: 48
✓ **Correct**: 8
✕ **Incorrect**: 40
**Average Score**: 16.67



Question 50 of 329

Question Difficulty: **Hard**

Mr. X is admitted to the ED due to confusion and seizures. His wife reported he has been eating a lot of bitter almonds.

His O2 saturation of 99% and his skin is profusely sweating with cherry-red color. His ABG shows:

| | | |
|---|---|---|
| PO 2 | 8 kPa | (10.0-14.0 kPa) |
| PCO 2 | 4.2 kPa | (4.4-5.9 kPa) |

What is the management of choice?

- ○ **Methylene blue**
- ● **Dicobalt edetate**
- ○ **Fomepizole**
- ○ **Atropine**
- ○ **Dimercaprol**

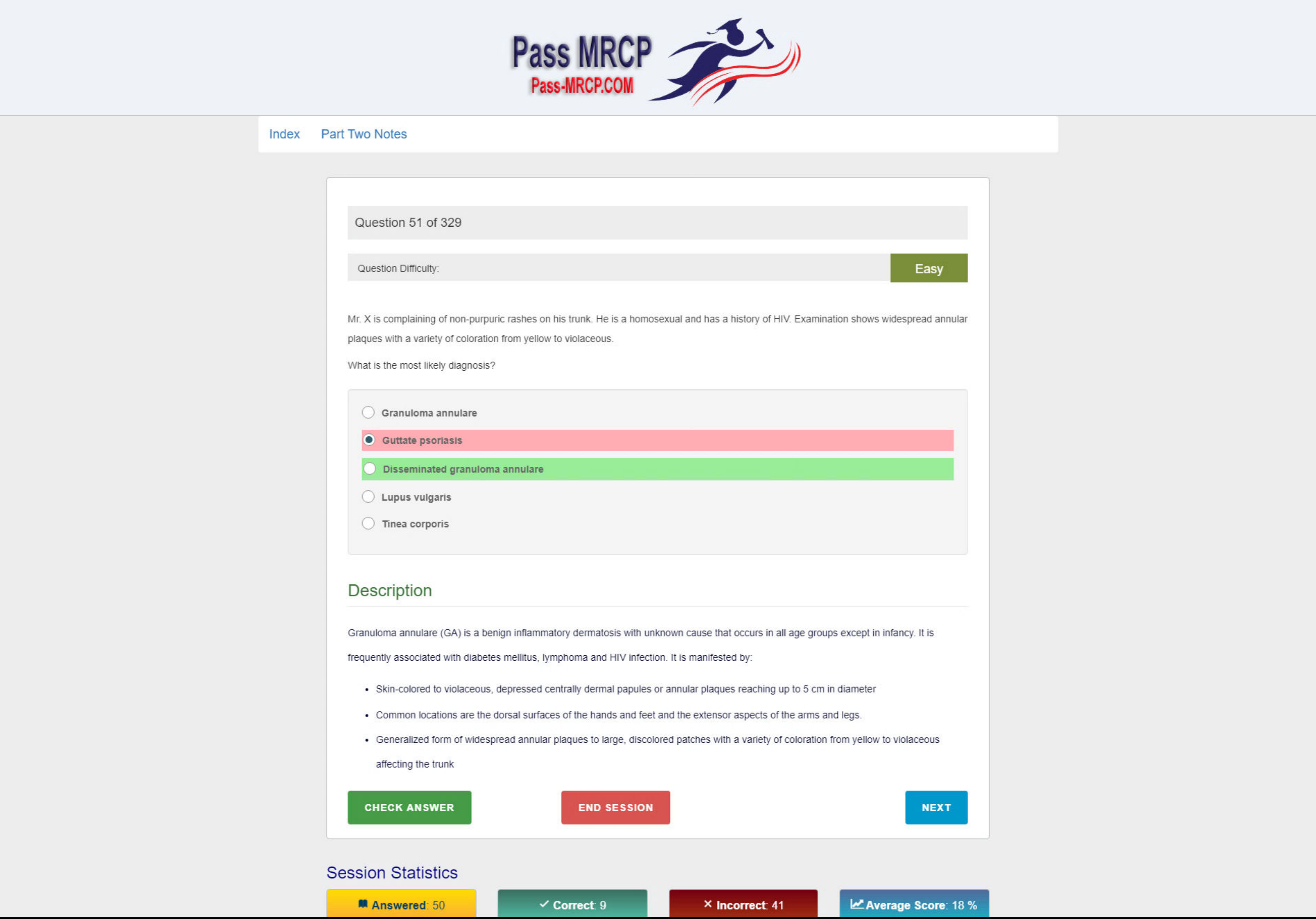
## Description

This patient has cyanide toxicity is generally considered to be a rare form of poisoning. Bitter almonds have high amount of amygdalin which is a common precipitating factor. It is manifested by:

- High, falsely pulse oximetry with low PO2
- Cherry-red skin color due to due to elevated venous oxygen content
- Carbon particles (soot) in the mouth and nose after smoke inhalation
- Mydriasis
- Diaphoresis

Management is by hyperbaric oxygen and cyanide antidotes as dicobalt edetate, hydroxocobalamin and sodium nitrite.

## Session Statistics



Question 51 of 329

Question Difficulty: **Easy**

Mr. X is complaining of non-purpuric rashes on his trunk. He is a homosexual and has a history of HIV. Examination shows widespread annular plaques with a variety of coloration from yellow to violaceous.

What is the most likely diagnosis?

○ **Granuloma annulare**
● **Guttate psoriasis**
○ **Disseminated granuloma annulare**
○ **Lupus vulgaris**
○ **Tinea corporis**

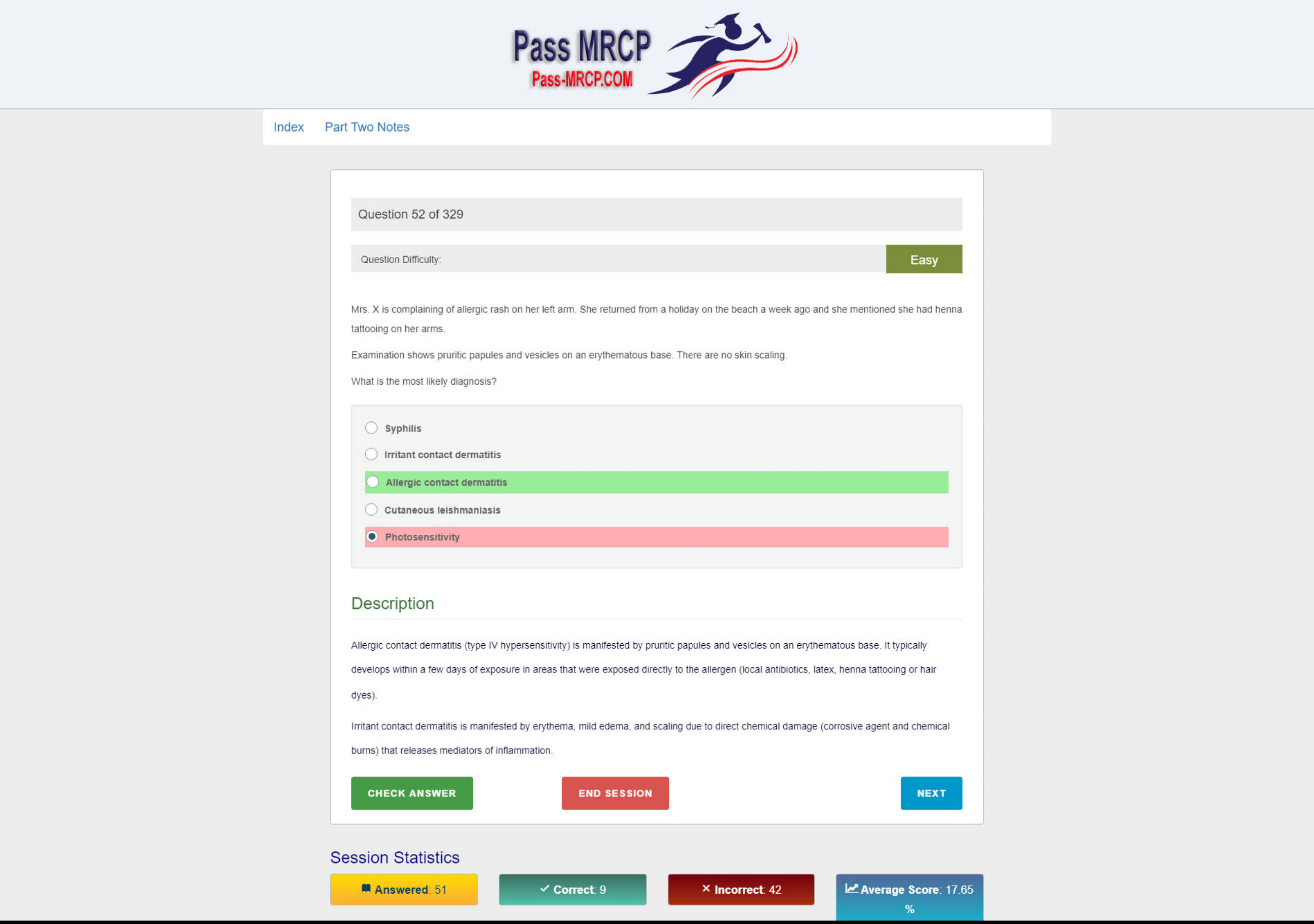
## Description

Granuloma annulare (GA) is a benign inflammatory dermatosis with unknown cause that occurs in all age groups except in infancy. It is frequently associated with diabetes mellitus, lymphoma and HIV infection. It is manifested by:

- Skin-colored to violaceous, depressed centrally dermal papules or annular plaques reaching up to 5 cm in diameter
- Common locations are the dorsal surfaces of the hands and feet and the extensor aspects of the arms and legs.
- Generalized form of widespread annular plaques to large, discolored patches with a variety of coloration from yellow to violaceous affecting the trunk

## Session Statistics

**Answered**: 50
✓ **Correct**: 9
✕ **Incorrect**: 41
**Average Score**: 18 %



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Question 52 of 329

Question Difficulty: Easy

Mrs. X is complaining of allergic rash on her left arm. She returned from a holiday on the beach a week ago and she mentioned she had henna tattooing on her arms.

Examination shows pruritic papules and vesicles on an erythematous base. There are no skin scaling.

What is the most likely diagnosis?

- ○ Syphilis
- ○ Irritant contact dermatitis
- ○ Allergic contact dermatitis
- ○ Cutaneous leishmaniasis
- ● Photosensitivity

## Description

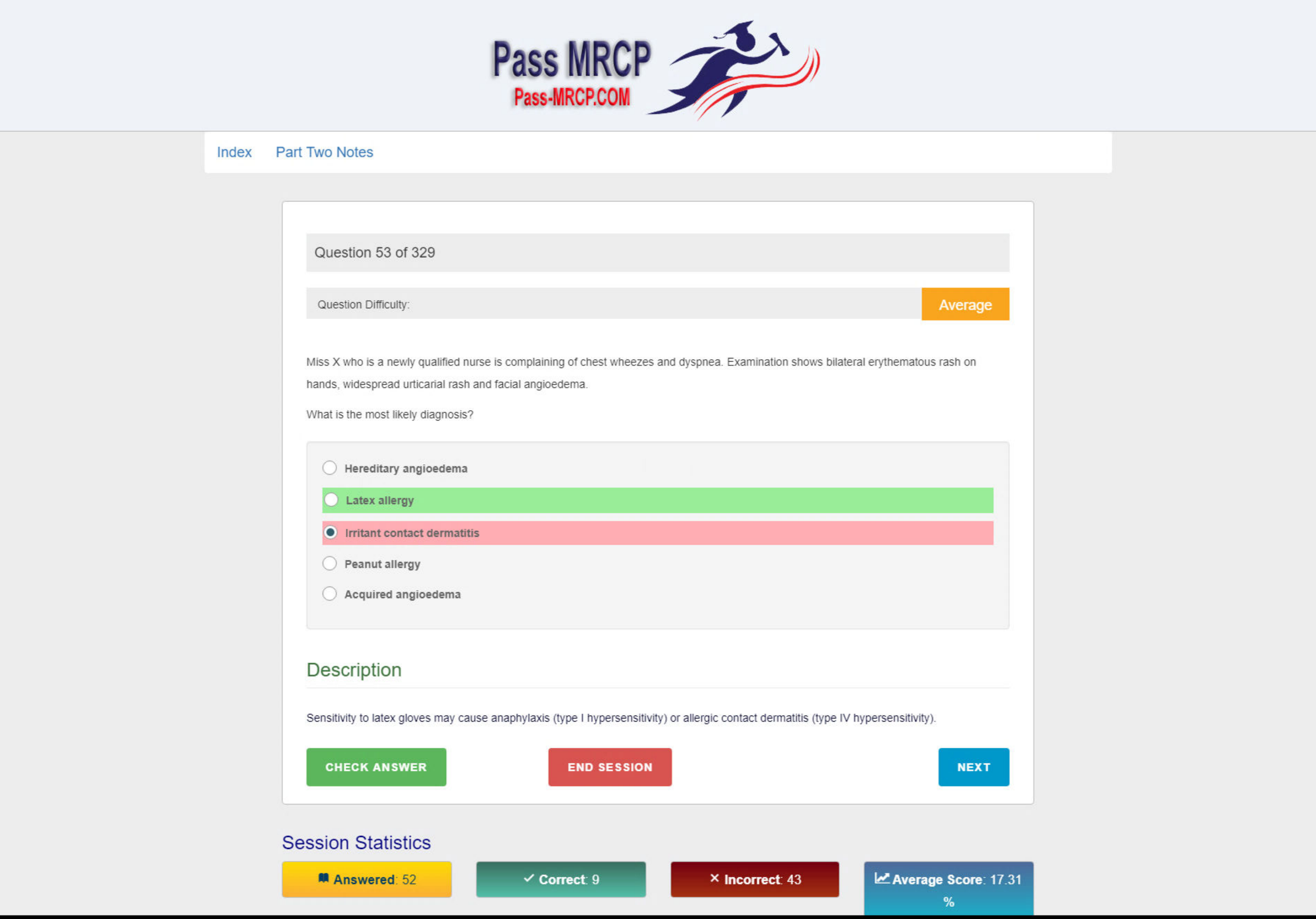
Allergic contact dermatitis (type IV hypersensitivity) is manifested by pruritic papules and vesicles on an erythematous base. It typically develops within a few days of exposure in areas that were exposed directly to the allergen (local antibiotics, latex, henna tattooing or hair dyes).

Irritant contact dermatitis is manifested by erythema, mild edema, and scaling due to direct chemical damage (corrosive agent and chemical burns) that releases mediators of inflammation.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 51
✓ Correct: 9
✕ Incorrect: 42
Average Score: 17.65 %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Question 53 of 329

Question Difficulty: Average

Miss X who is a newly qualified nurse is complaining of chest wheezes and dyspnea. Examination shows bilateral erythematous rash on hands, widespread urticarial rash and facial angioedema.

What is the most likely diagnosis?

- ○ **Hereditary angioedema**
- ○ **Latex allergy**
- ● **Irritant contact dermatitis**
- ○ **Peanut allergy**
- ○ **Acquired angioedema**

## Description

Sensitivity to latex gloves may cause anaphylaxis (type I hypersensitivity) or allergic contact dermatitis (type IV hypersensitivity).

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

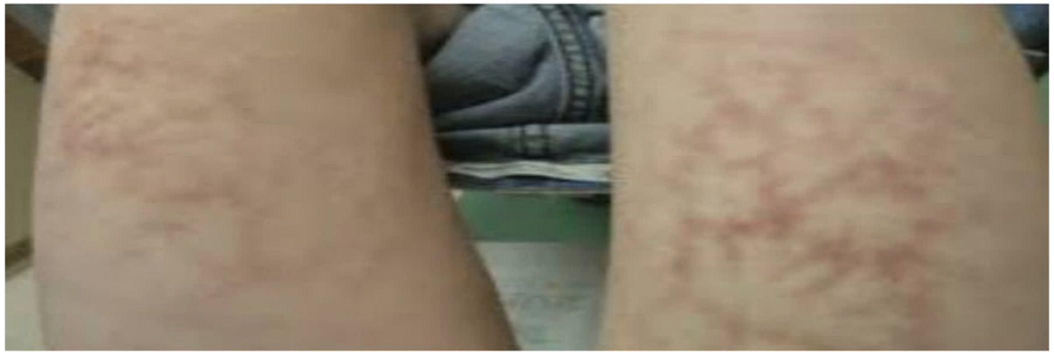
**Answered**: 52
✓ **Correct**: 9
× **Incorrect**: 43
**Average Score**: 17.31 %

Question 54 of 329

Question Difficulty: **Hard**

70 years Mrs. X is complaining of rash to both shins shown in the image for 2 months.

Examination shows brown-colored reticular pigmented painless rash shown in the image. Her pedal pulses were intact.



What is the most likely diagnosis?

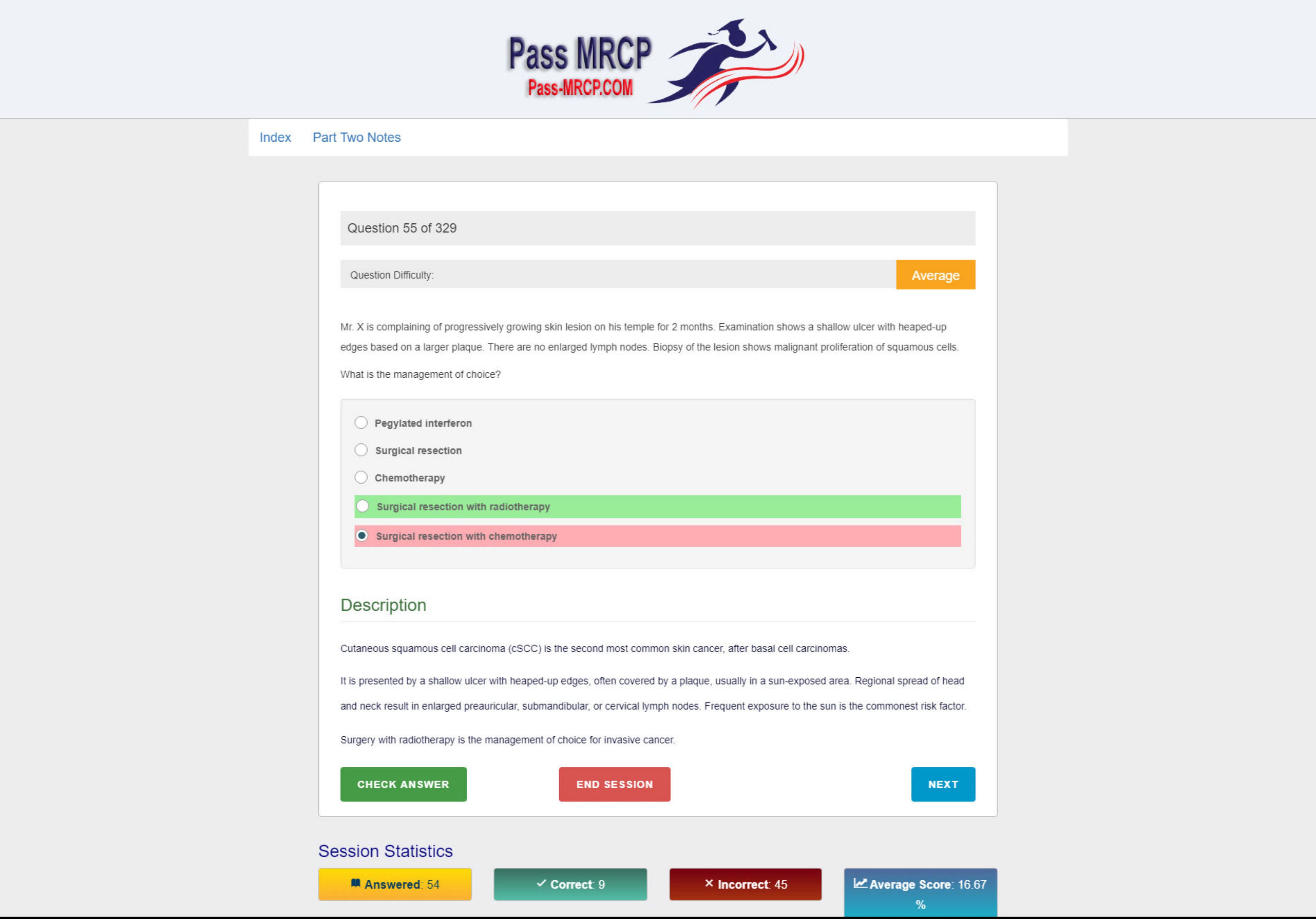
- ● **Xanthomata**
- ○ **Erythema ab igne**
- ○ **Erythema marginatum**
- ○ **Herpes zoster**
- ○ **Pretibial myxedema**

## Description

Erythema ab igne (EAI) is characterized as localized areas of reticulated erythema, telangiectasia and hyperpigmentation due to chronic and repeated exposure to infrared radiation (open fire).

Examples include the legs of women aged 40-70 years who use indoor fire as a heat source and the face and or palms of cooks who work over an open fire.

**CHECK ANSWER** **END SESSION** **NEXT**



Question 55 of 329

Question Difficulty: Average

Mr. X is complaining of progressively growing skin lesion on his temple for 2 months. Examination shows a shallow ulcer with heaped-up edges based on a larger plaque. There are no enlarged lymph nodes. Biopsy of the lesion shows malignant proliferation of squamous cells.

What is the management of choice?

- ○ **Pegylated interferon**
- ○ **Surgical resection**
- ○ **Chemotherapy**
- ○ **Surgical resection with radiotherapy**
- ● **Surgical resection with chemotherapy**

## Description

Cutaneous squamous cell carcinoma (cSCC) is the second most common skin cancer, after basal cell carcinomas.

It is presented by a shallow ulcer with heaped-up edges, often covered by a plaque, usually in a sun-exposed area. Regional spread of head and neck result in enlarged preauricular, submandibular, or cervical lymph nodes. Frequent exposure to the sun is the commonest risk factor.

Surgery with radiotherapy is the management of choice for invasive cancer.

Session Statistics

**Answered**: 54

✓ **Correct**: 9

✕ **Incorrect**: 45

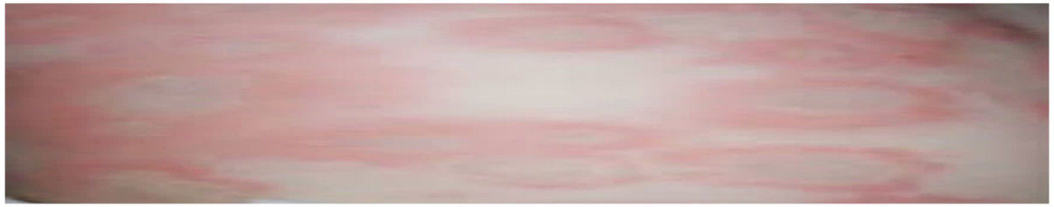
**Average Score**: 16.67 %

Question 56 of 329

Question Difficulty: **Hard**

Mr. X is complaining of widespread painful skin rashes. He recently had tonsillitis and had management with amoxicillin and aspirin.

Examination shows erythematous painful papules with smooth surfaces with polycyclic curved borders on his hands and legs shown in the image. They faded after 3 hours leaving no trace.



What is the most likely diagnosis?

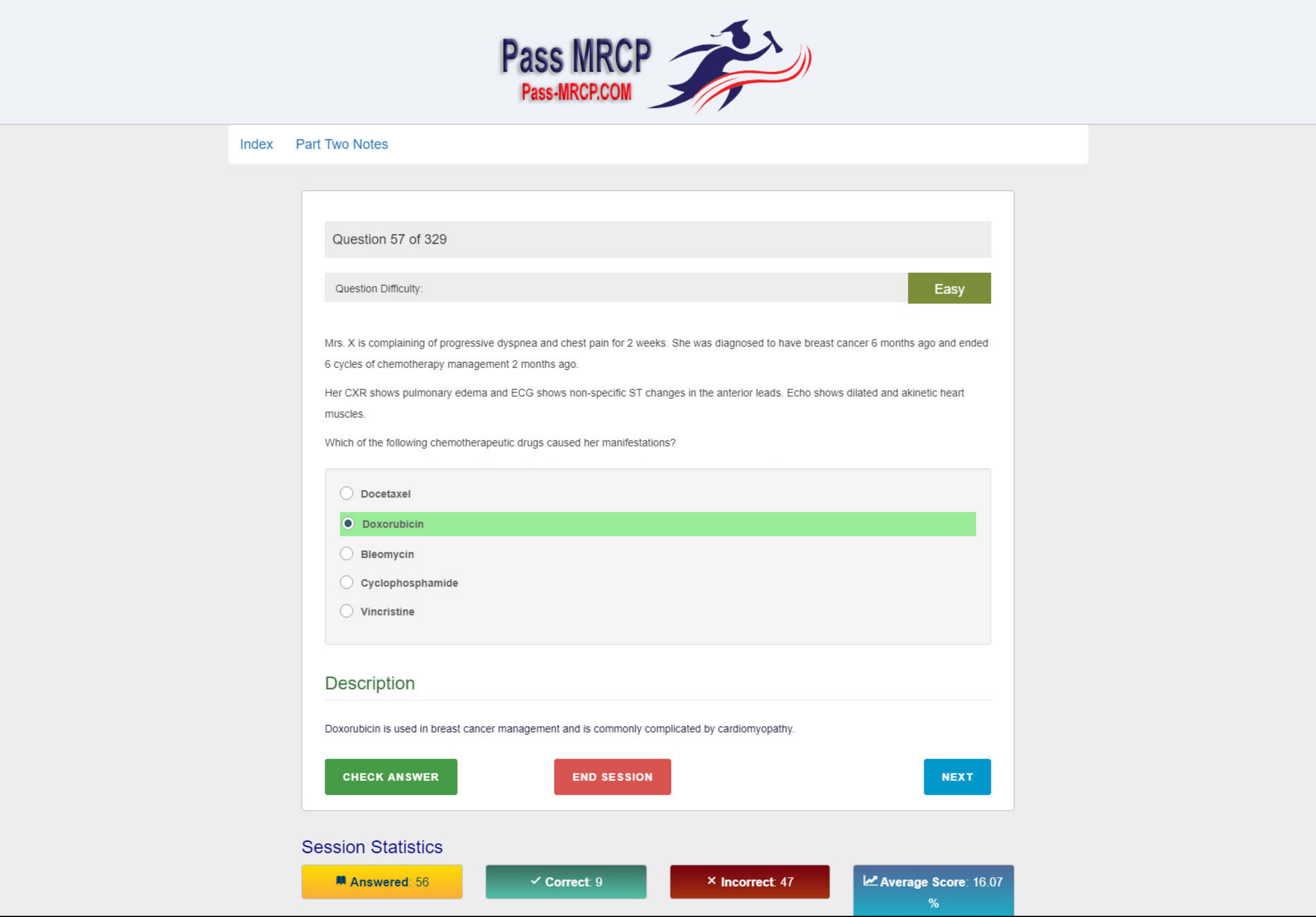
- ○ **Cutaneous vasculitis**
- ○ **Drug hypersensitivity syndrome**
- ○ **Urticaria**
- ● **Epstein Barr virus (EBV) infection**
- ○ **Scarlet fever**

## Description

Urticaria (hives) is a vascular reaction of the skin marked by the transient appearance of smooth, slightly elevated patches (wheals) that are erythematous and are often associated with severe pruritus.

- Lesions are polymorphic and vary from several millimeters to large, continuous edematous plaques
- Lesions are smooth surfaces with polycyclic curved borders
- Lesions typically fade with no scars
- Severe forms with features of anaphylaxis and angioedema

CHECK ANSWER END SESSION NEXT



Question 57 of 329

Question Difficulty: Easy

Mrs. X is complaining of progressive dyspnea and chest pain for 2 weeks. She was diagnosed to have breast cancer 6 months ago and ended 6 cycles of chemotherapy management 2 months ago.

Her CXR shows pulmonary edema and ECG shows non-specific ST changes in the anterior leads. Echo shows dilated and akinetic heart muscles.

Which of the following chemotherapeutic drugs caused her manifestations?

- ○ Docetaxel
- ● Doxorubicin
- ○ Bleomycin
- ○ Cyclophosphamide
- ○ Vincristine

## Description

Doxorubicin is used in breast cancer management and is commonly complicated by cardiomyopathy.

## Session Statistics

**Answered**: 56

✓ **Correct**: 9

✕ **Incorrect**: 47

**Average Score**: 16.07 %

Question 58 of 329

Question Difficulty: **Easy**

Mr. X with a long history of epilepsy and ischemic heart disease is complaining of increasing anxiety and lethargy for 4 months. He reported his symptoms started to appear after his GP prescribed cimetidine of his gastritis.

Examination shows glove and stock peripheral sensory loss. There is increased her facial and scalp hair growth. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 26 μmol/L | (2-17 μmol/L) |
| ALT | 85 U/L | (8-20 U/L) |
| Serum creatinine | 89 mmol/L | (53-106 mmol/L) |
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4 mmol/L | (3.5-5.0 mmol/L) |
| Leukocyte count | 6 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 180 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | 13.5-17.5 g/dL |
| MCV | 1.8 fl | 80-100 fl |

| | | |
|---|---|---|
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4 mmol/L | (3.5-5.0 mmol/L) |
| Leukocyte count | 6 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 180 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | 13.5-17.5 g/dL |
| MCV | 1.8 fl | 80-100 fl |

What is the most likely causative drug?

○ **Atorvastatin**
○ **Atenolol**
● **Phenytoin**
○ **Carbamazepine**
○ **Clopidogrel**

## Description

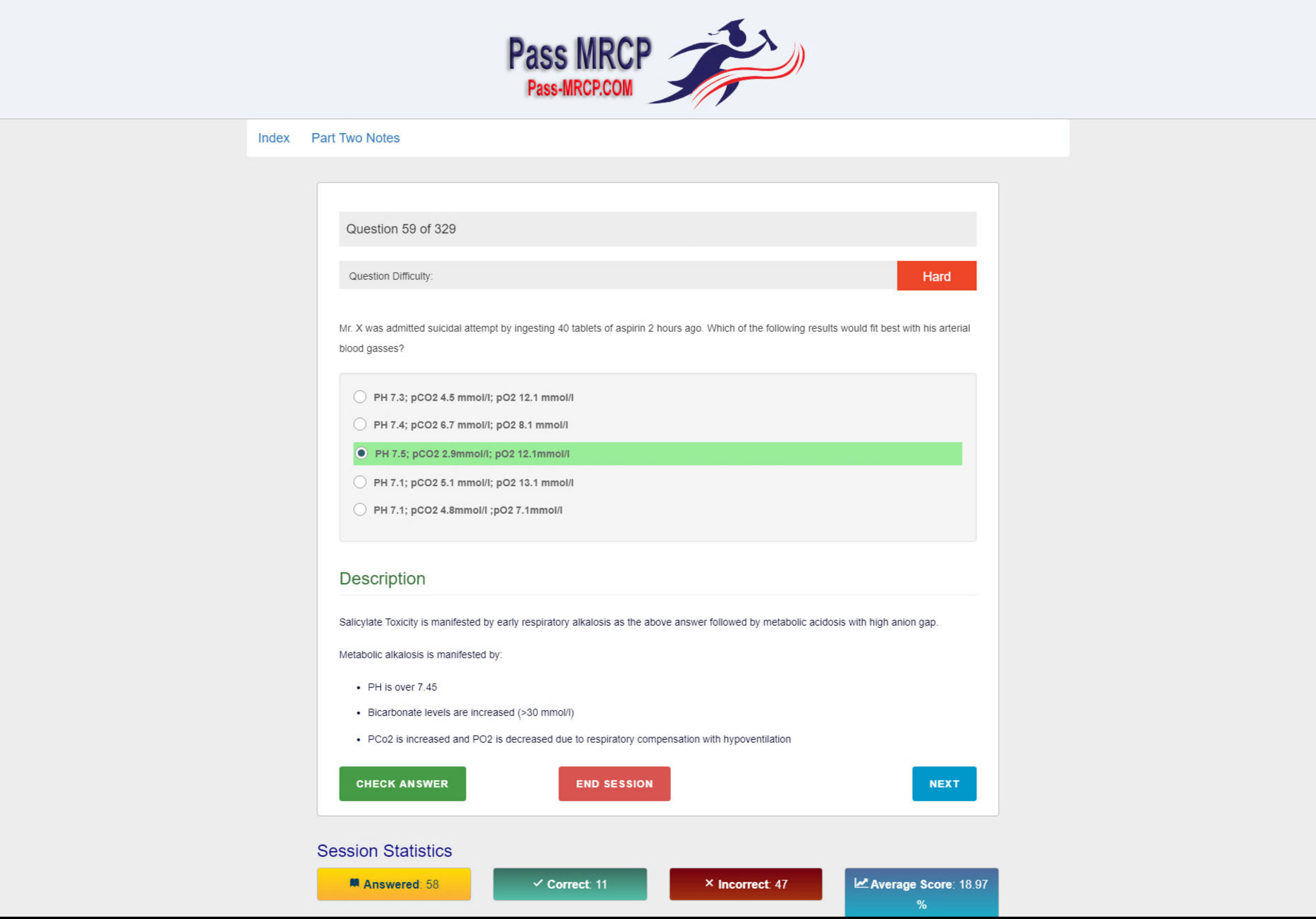
Phenytoin adverse effects are common due to narrow therapeutic index. They include:

- Cardiac: hypotension and arrhythmia
- Neurological: peripheral neuropathy ,vertical nystagmus, double vision, sedation, slurred speech, cerebellar ataxia, and tremor
- Blood: reduction in folic acid levels leading to megaloblastic anemia, other side effects: agranulocytosis and aplastic anemia
- Skin: hypertrichosis , hirsutism, Stevens-Johnson syndrome, and exfoliative dermatitis
- Decreased bone density and increased bone fractures due to enhanced vitamin D metabolism
- Teratogenicity
- Lymphadenopathy
- Gingival hyperplasia
- Drug-induced lupus

CHECK ANSWER END SESSION NEXT

## Session Statistics

**Answered**: 57 ✓ **Correct**: 10 ✕ **Incorrect**: 47 **Average Score**: 17.54 %



Question 59 of 329

Question Difficulty: Hard

Mr. X was admitted suicidal attempt by ingesting 40 tablets of aspirin 2 hours ago. Which of the following results would fit best with his arterial blood gasses?

○ PH 7.3; pCO2 4.5 mmol/l; pO2 12.1 mmol/l
○ PH 7.4; pCO2 6.7 mmol/l; pO2 8.1 mmol/l
● PH 7.5; pCO2 2.9mmol/l; pO2 12.1mmol/l
○ PH 7.1; pCO2 5.1 mmol/l; pO2 13.1 mmol/l
○ PH 7.1; pCO2 4.8mmol/l ;pO2 7.1mmol/l

## Description

Salicylate Toxicity is manifested by early respiratory alkalosis as the above answer followed by metabolic acidosis with high anion gap.

Metabolic alkalosis is manifested by:

- PH is over 7.45
- Bicarbonate levels are increased (>30 mmol/l)
- PCo2 is increased and PO2 is decreased due to respiratory compensation with hypoventilation

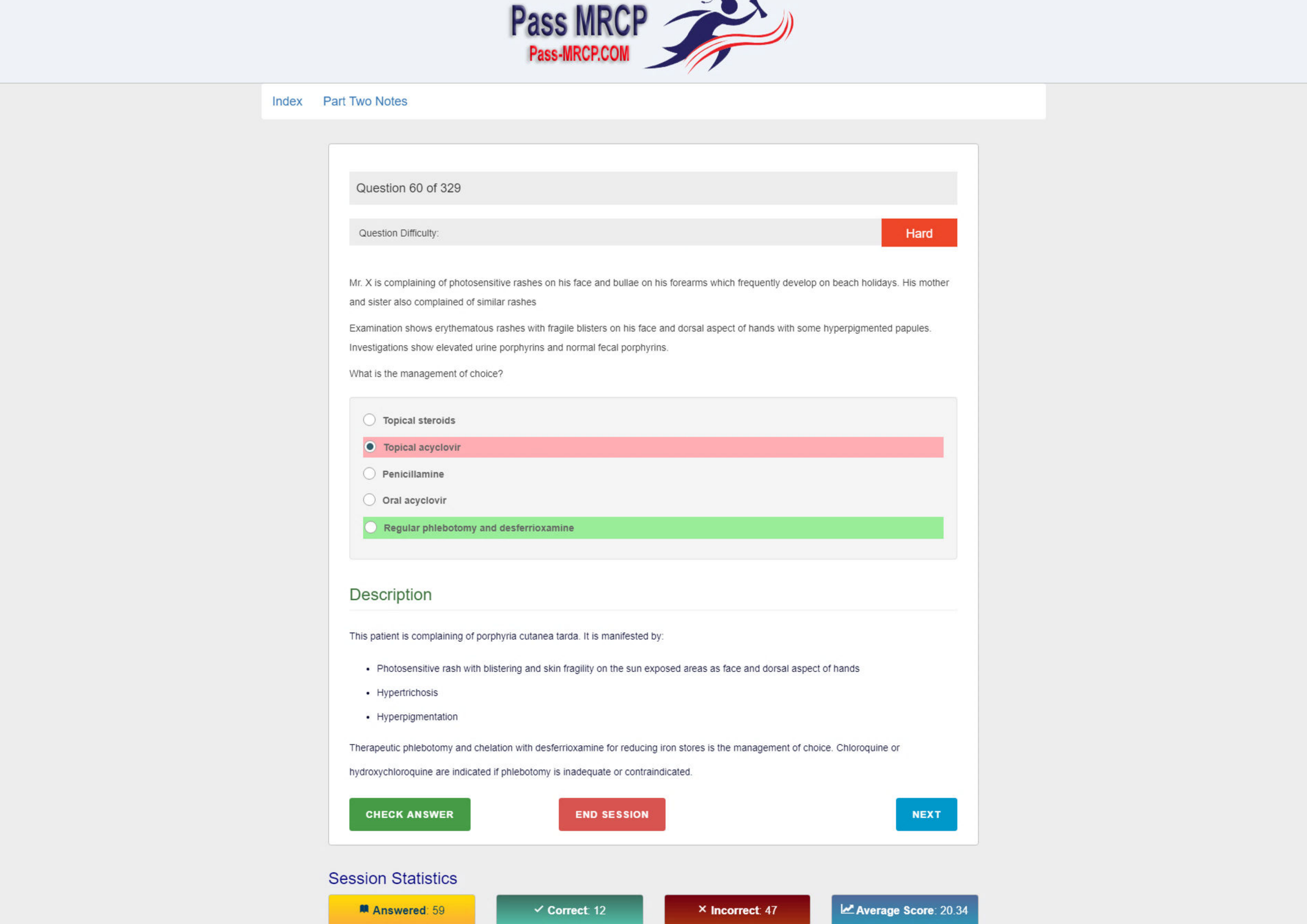
Session Statistics

Answered: 58

✓ Correct: 11

✕ Incorrect: 47

Average Score: 18.97 %



Question 60 of 329

Question Difficulty: Hard

Mr. X is complaining of photosensitive rashes on his face and bullae on his forearms which frequently develop on beach holidays. His mother and sister also complained of similar rashes

Examination shows erythematous rashes with fragile blisters on his face and dorsal aspect of hands with some hyperpigmented papules. Investigations show elevated urine porphyrins and normal fecal porphyrins.

What is the management of choice?

○ **Topical steroids**
● **Topical acyclovir**
○ **Penicillamine**
○ **Oral acyclovir**
○ **Regular phlebotomy and desferrioxamine**

## Description

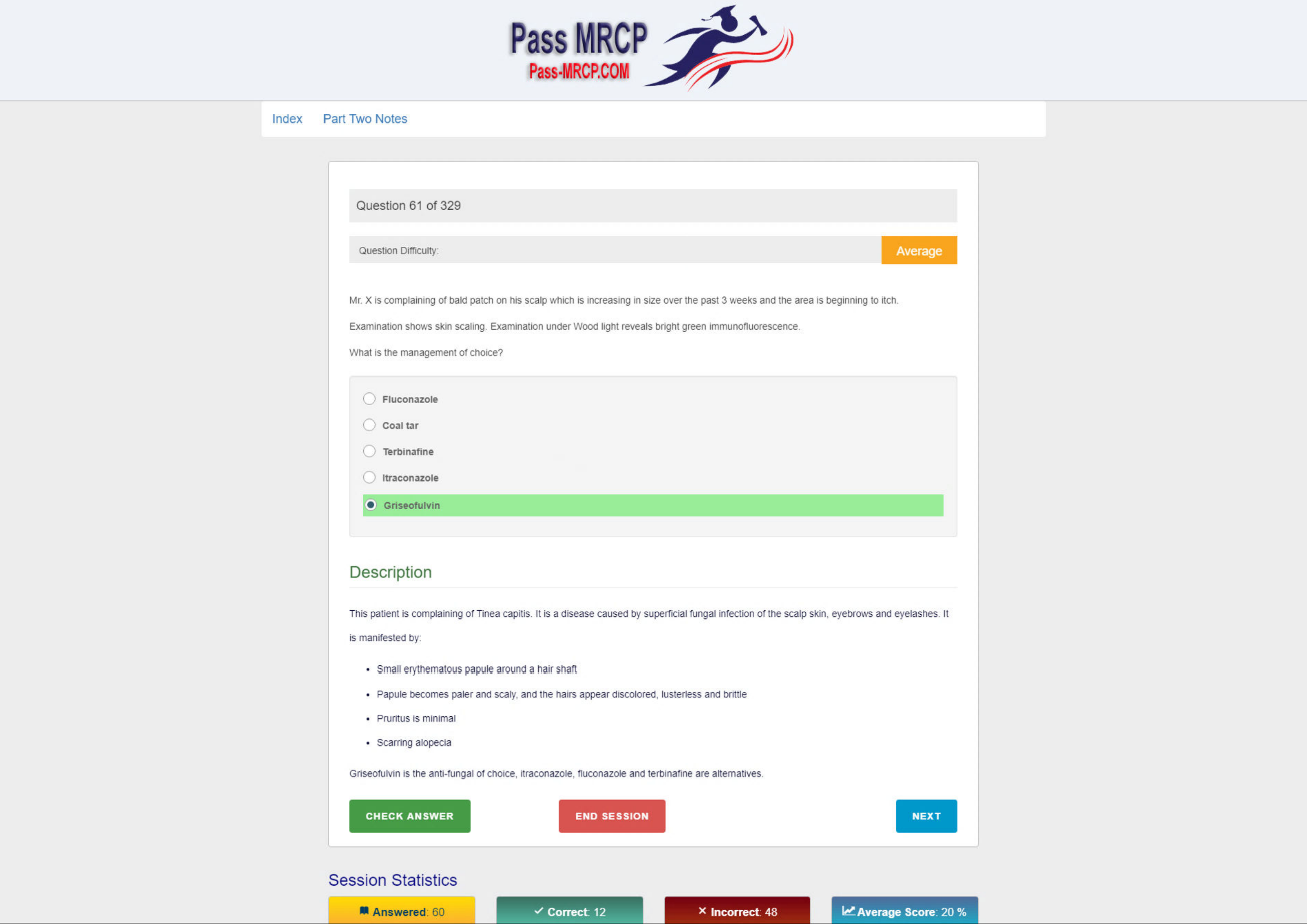
This patient is complaining of porphyria cutanea tarda. It is manifested by:

- Photosensitive rash with blistering and skin fragility on the sun exposed areas as face and dorsal aspect of hands
- Hypertrichosis
- Hyperpigmentation

Therapeutic phlebotomy and chelation with desferrioxamine for reducing iron stores is the management of choice. Chloroquine or hydroxychloroquine are indicated if phlebotomy is inadequate or contraindicated.

## Session Statistics

**Answered**: 59
✓ **Correct**: 12
✕ **Incorrect**: 47
**Average Score**: 20.34



Question 61 of 329

Question Difficulty: **Average**

Mr. X is complaining of bald patch on his scalp which is increasing in size over the past 3 weeks and the area is beginning to itch.

Examination shows skin scaling. Examination under Wood light reveals bright green immunofluorescence.

What is the management of choice?

○ **Fluconazole**
○ **Coal tar**
○ **Terbinafine**
○ **Itraconazole**
● **Griseofulvin**

## Description

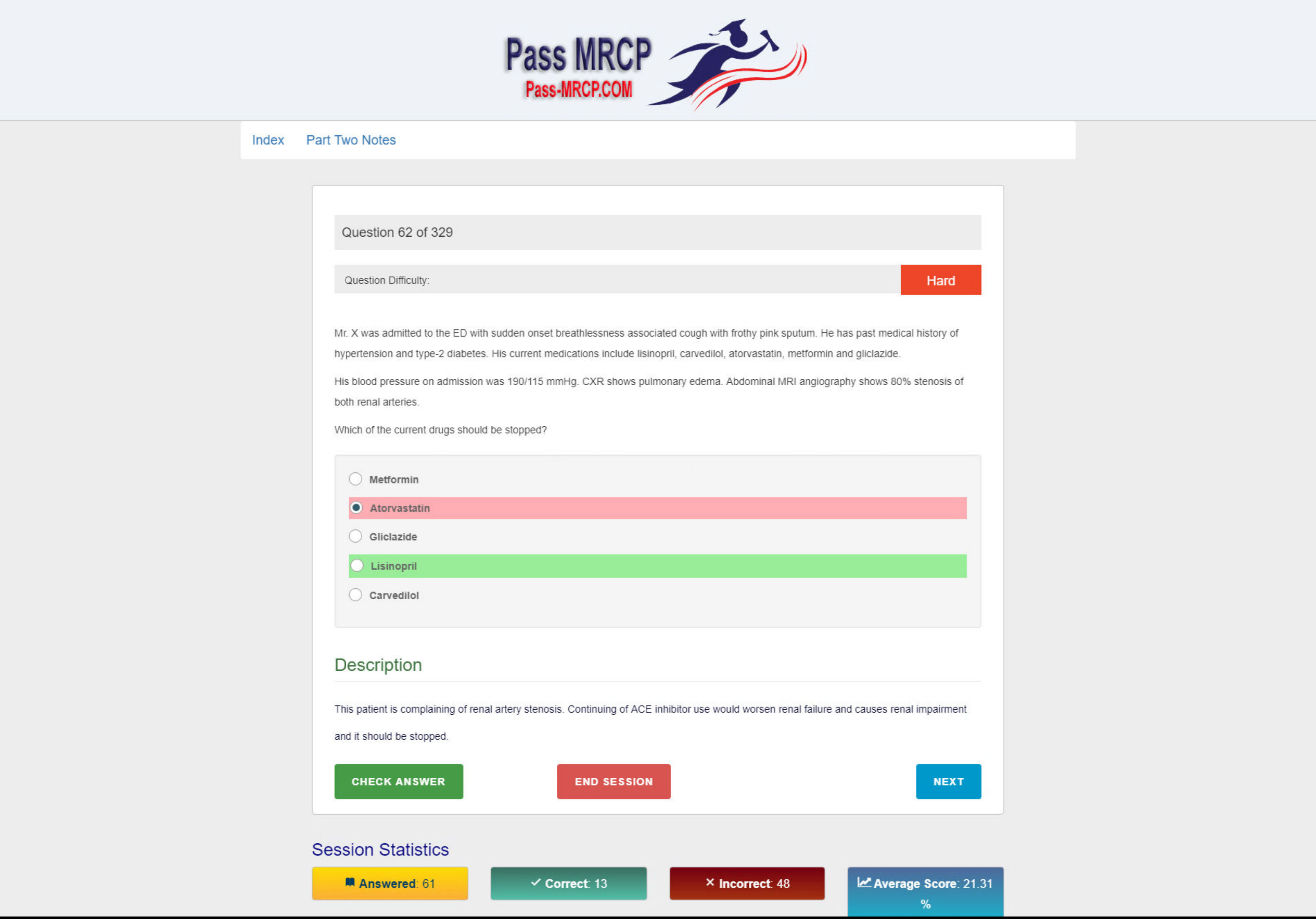
This patient is complaining of Tinea capitis. It is a disease caused by superficial fungal infection of the scalp skin, eyebrows and eyelashes. It is manifested by:

- Small erythematous papule around a hair shaft
- Papule becomes paler and scaly, and the hairs appear discolored, lusterless and brittle
- Pruritus is minimal
- Scarring alopecia

Griseofulvin is the anti-fungal of choice, itraconazole, fluconazole and terbinafine are alternatives.

## Session Statistics

**Answered**: 60
✓ **Correct**: 12
✕ **Incorrect**: 48
**Average Score**: 20 %



Question 62 of 329

Question Difficulty: Hard

Mr. X was admitted to the ED with sudden onset breathlessness associated cough with frothy pink sputum. He has past medical history of hypertension and type-2 diabetes. His current medications include lisinopril, carvedilol, atorvastatin, metformin and gliclazide.

His blood pressure on admission was 190/115 mmHg. CXR shows pulmonary edema. Abdominal MRI angiography shows 80% stenosis of both renal arteries.

Which of the current drugs should be stopped?

- ○ **Metformin**
- ● **Atorvastatin**
- ○ **Gliclazide**
- ○ **Lisinopril**
- ○ **Carvedilol**

## Description

This patient is complaining of renal artery stenosis. Continuing of ACE inhibitor use would worsen renal failure and causes renal impairment and it should be stopped.

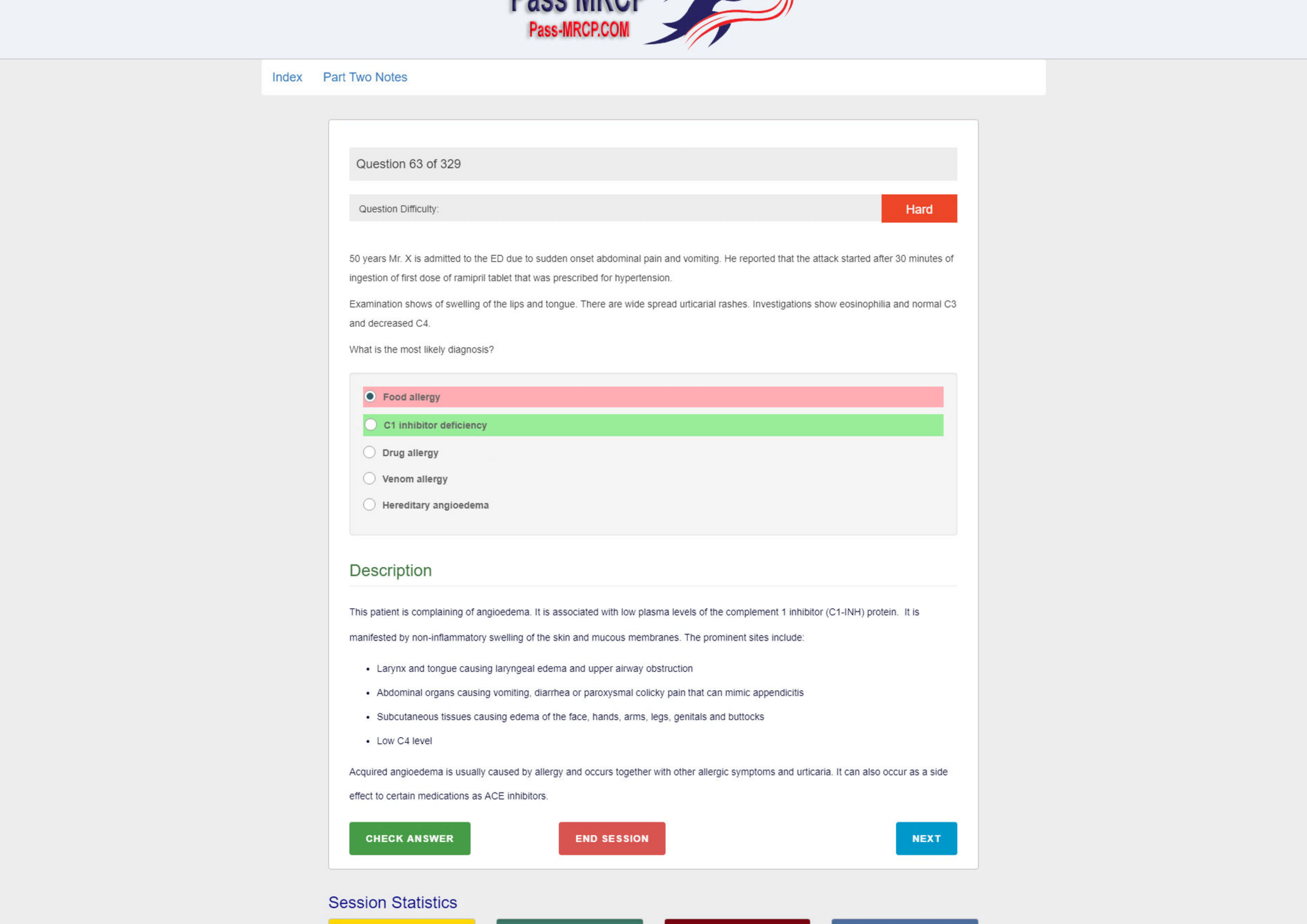
## Session Statistics

**Answered**: 61

✓ **Correct**: 13

✕ **Incorrect**: 48

**Average Score**: 21.31 %



Question 63 of 329

Question Difficulty: Hard

50 years Mr. X is admitted to the ED due to sudden onset abdominal pain and vomiting. He reported that the attack started after 30 minutes of ingestion of first dose of ramipril tablet that was prescribed for hypertension.

Examination shows of swelling of the lips and tongue. There are wide spread urticarial rashes. Investigations show eosinophilia and normal C3 and decreased C4.

What is the most likely diagnosis?

- ● **Food allergy**
- ○ **C1 inhibitor deficiency**
- ○ **Drug allergy**
- ○ **Venom allergy**
- ○ **Hereditary angioedema**

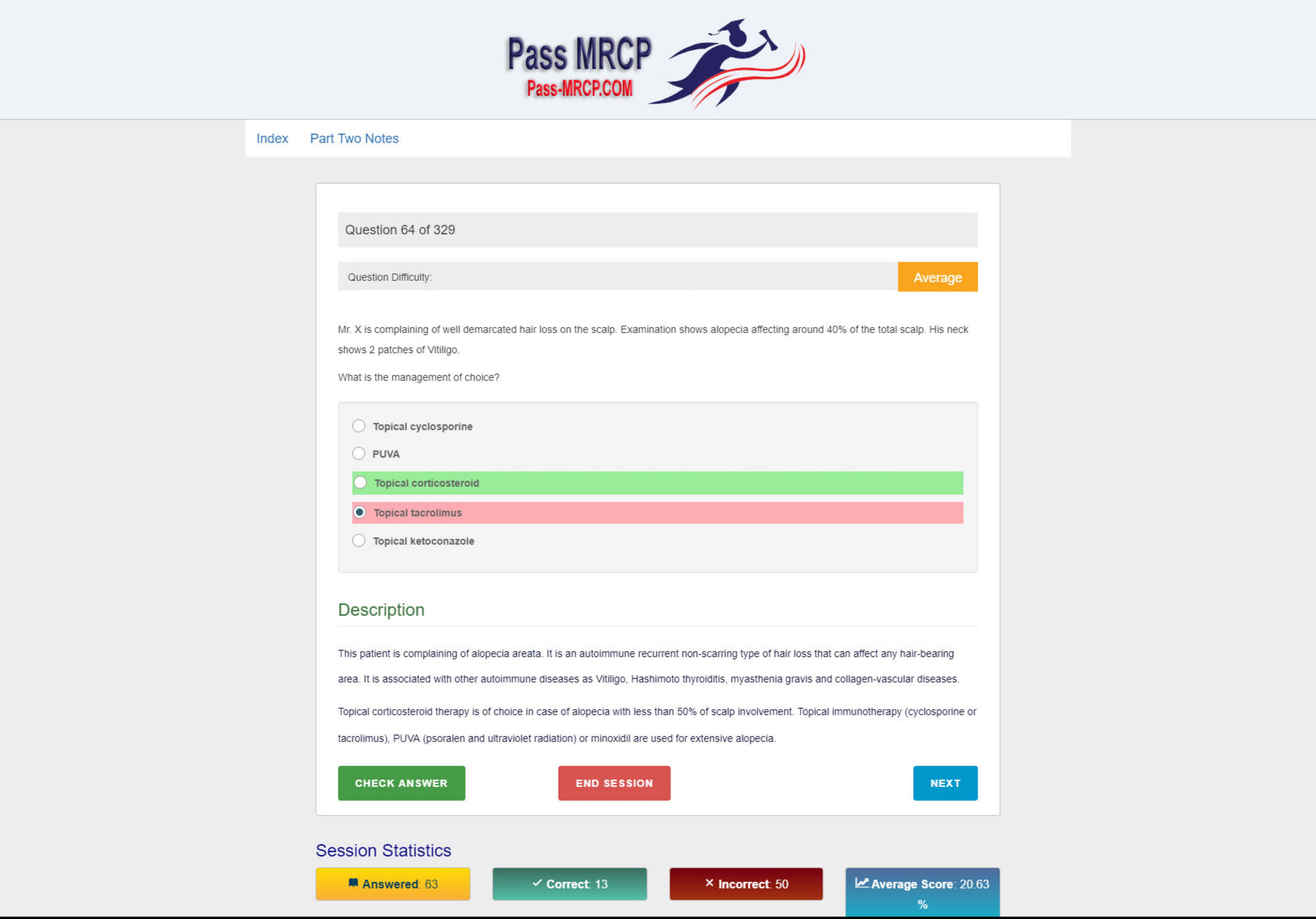
## Description

This patient is complaining of angioedema. It is associated with low plasma levels of the complement 1 inhibitor (C1-INH) protein. It is manifested by non-inflammatory swelling of the skin and mucous membranes. The prominent sites include:

- Larynx and tongue causing laryngeal edema and upper airway obstruction
- Abdominal organs causing vomiting, diarrhea or paroxysmal colicky pain that can mimic appendicitis
- Subcutaneous tissues causing edema of the face, hands, arms, legs, genitals and buttocks
- Low C4 level

Acquired angioedema is usually caused by allergy and occurs together with other allergic symptoms and urticaria. It can also occur as a side effect to certain medications as ACE inhibitors.

Session Statistics



Question 64 of 329

Question Difficulty: Average

Mr. X is complaining of well demarcated hair loss on the scalp. Examination shows alopecia affecting around 40% of the total scalp. His neck shows 2 patches of Vitiligo.

What is the management of choice?

○ Topical cyclosporine
○ PUVA
○ Topical corticosteroid
● Topical tacrolimus
○ Topical ketoconazole

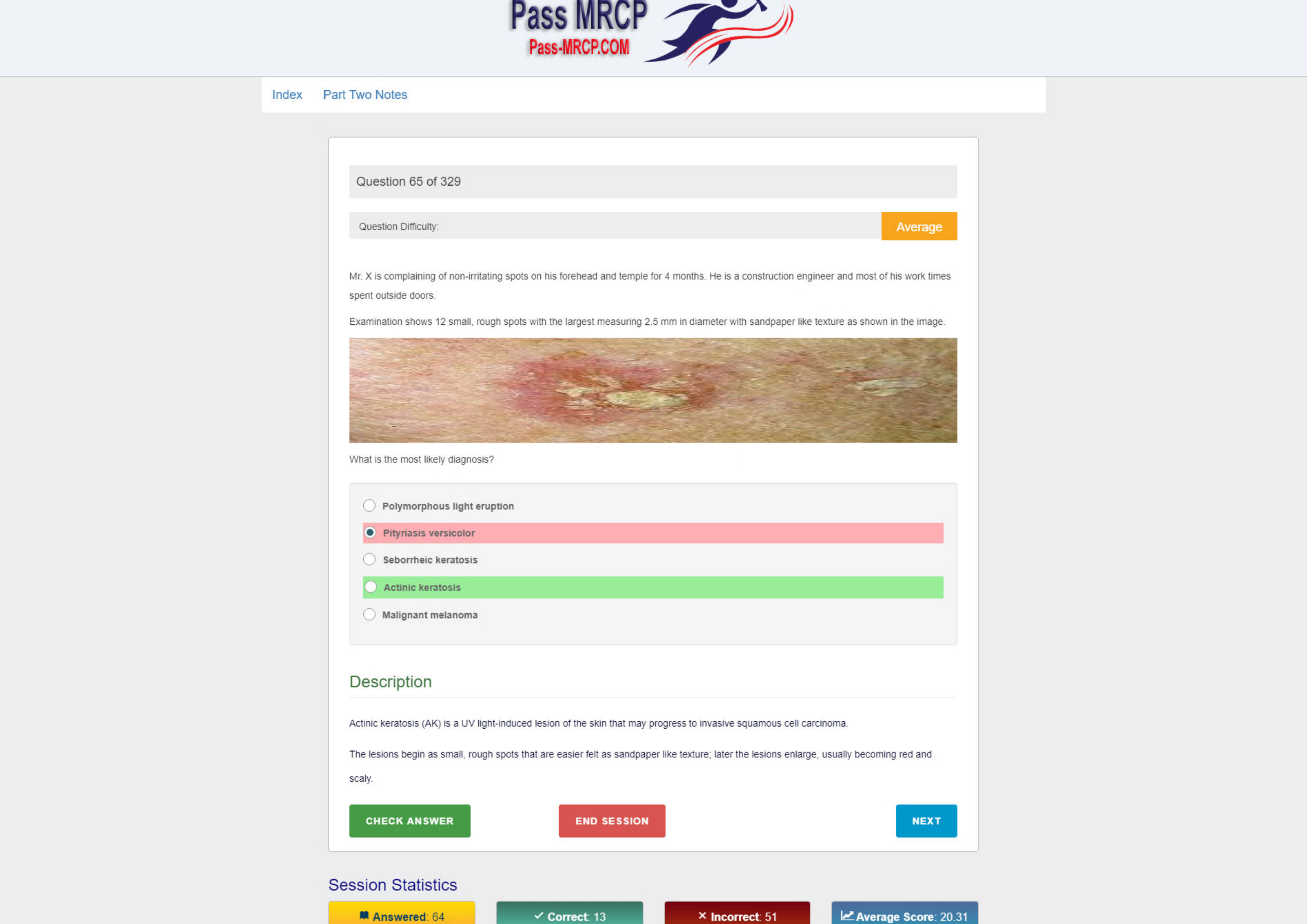
## Description

This patient is complaining of alopecia areata. It is an autoimmune recurrent non-scarring type of hair loss that can affect any hair-bearing area. It is associated with other autoimmune diseases as Vitiligo, Hashimoto thyroiditis, myasthenia gravis and collagen-vascular diseases.

Topical corticosteroid therapy is of choice in case of alopecia with less than 50% of scalp involvement. Topical immunotherapy (cyclosporine or tacrolimus), PUVA (psoralen and ultraviolet radiation) or minoxidil are used for extensive alopecia.

Session Statistics

**Answered**: 63
✓ **Correct**: 13
✕ **Incorrect**: 50
**Average Score**: 20.63 %



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Question 65 of 329

Question Difficulty: Average

Mr. X is complaining of non-irritating spots on his forehead and temple for 4 months. He is a construction engineer and most of his work times spent outside doors.

Examination shows 12 small, rough spots with the largest measuring 2.5 mm in diameter with sandpaper like texture as shown in the image.

What is the most likely diagnosis?

- ○ Polymorphous light eruption
- ● Pityriasis versicolor
- ○ Seborrheic keratosis
- ○ Actinic keratosis
- ○ Malignant melanoma

## Description

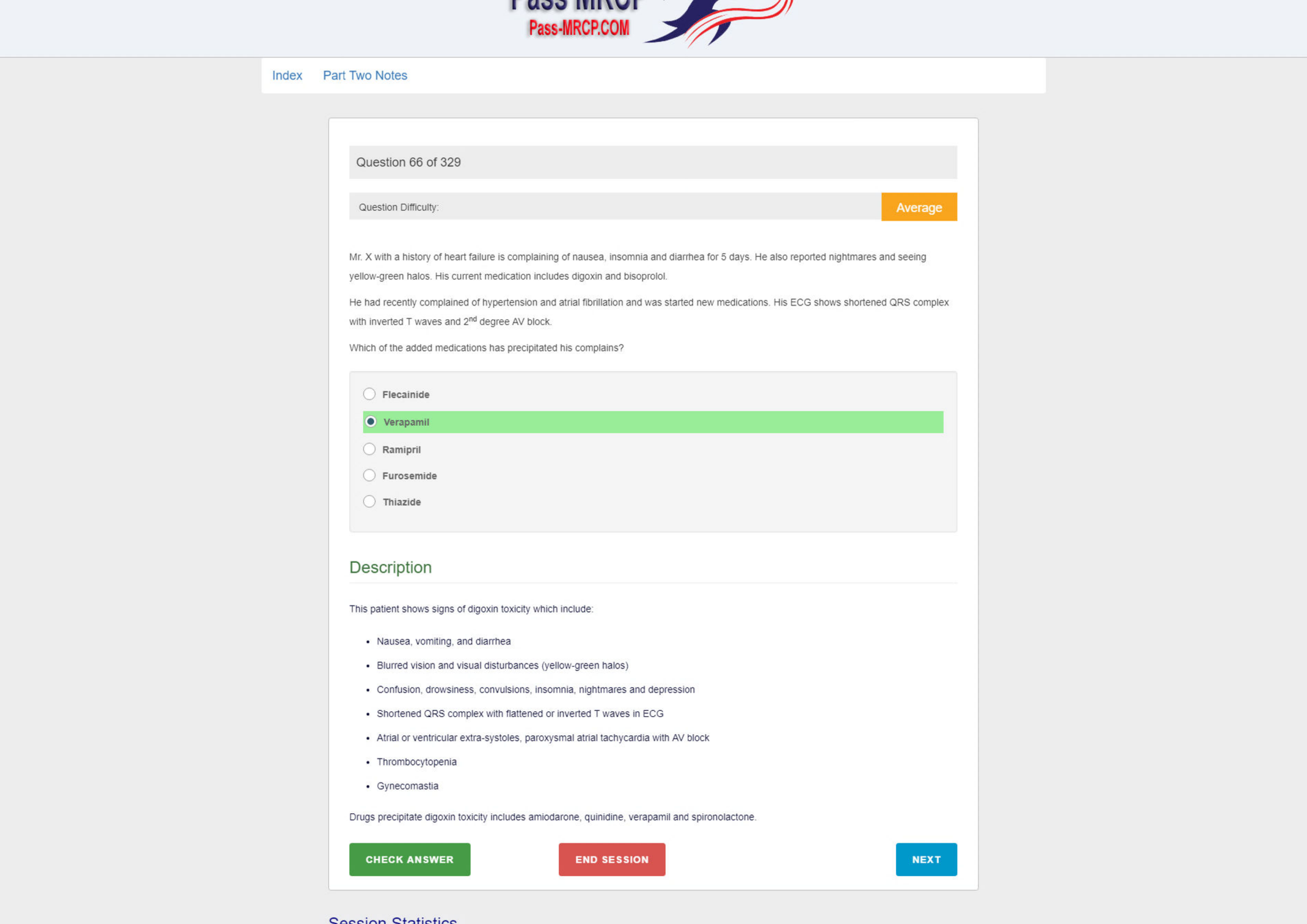
Actinic keratosis (AK) is a UV light-induced lesion of the skin that may progress to invasive squamous cell carcinoma.

The lesions begin as small, rough spots that are easier felt as sandpaper like texture; later the lesions enlarge, usually becoming red and scaly.

CHECK ANSWER
END SESSION
NEXT

Session Statistics

Answered: 64
Correct: 13
Incorrect: 51
Average Score: 20.31



Question 66 of 329

Question Difficulty: Average

Mr. X with a history of heart failure is complaining of nausea, insomnia and diarrhea for 5 days. He also reported nightmares and seeing yellow-green halos. His current medication includes digoxin and bisoprolol.

He had recently complained of hypertension and atrial fibrillation and was started new medications. His ECG shows shortened QRS complex with inverted T waves and 2$^{nd}$ degree AV block.

Which of the added medications has precipitated his complains?

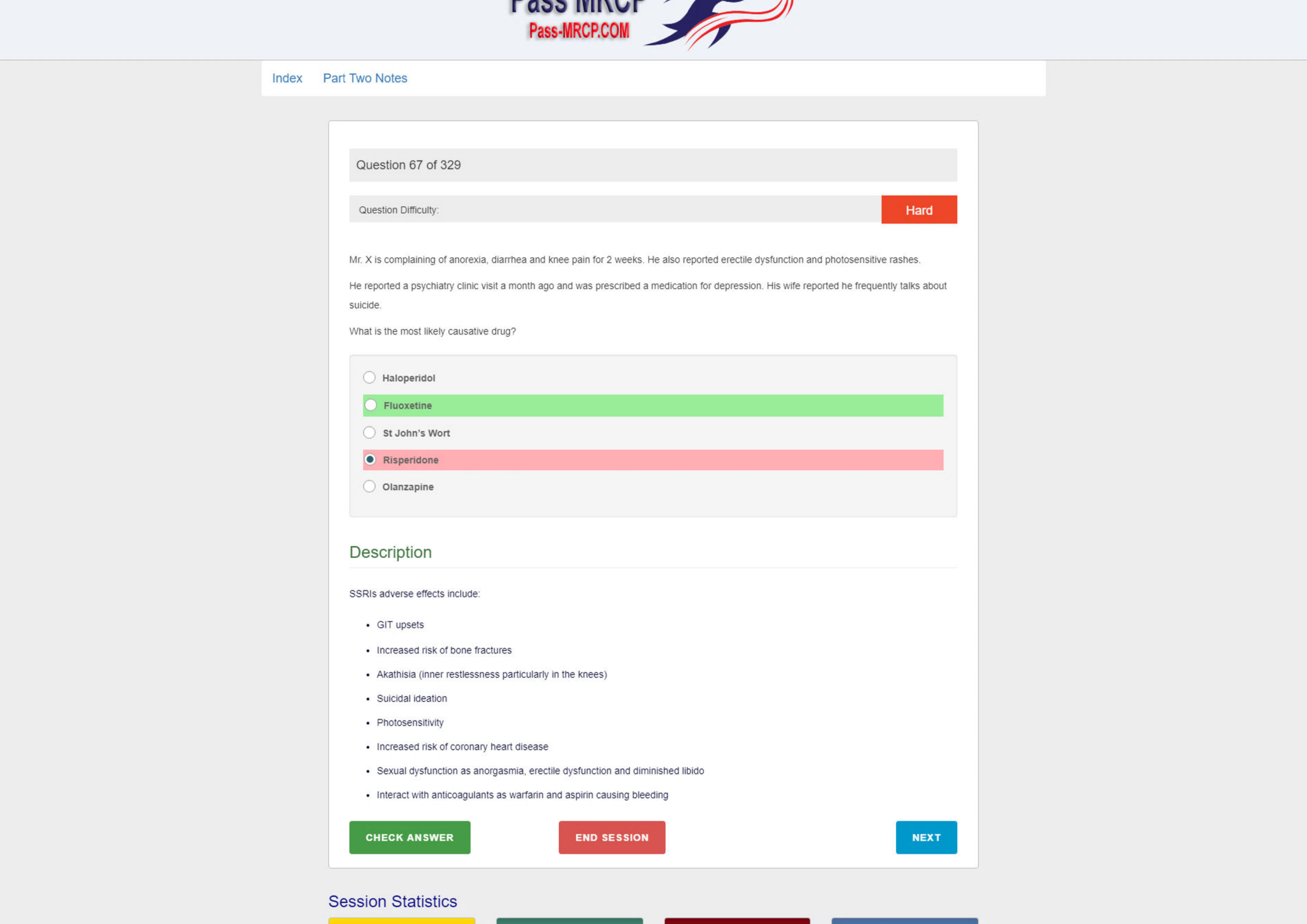
○ **Flecainide**
● **Verapamil**
○ **Ramipril**
○ **Furosemide**
○ **Thiazide**

## Description

This patient shows signs of digoxin toxicity which include:

- Nausea, vomiting, and diarrhea
- Blurred vision and visual disturbances (yellow-green halos)
- Confusion, drowsiness, convulsions, insomnia, nightmares and depression
- Shortened QRS complex with flattened or inverted T waves in ECG
- Atrial or ventricular extra-systoles, paroxysmal atrial tachycardia with AV block
- Thrombocytopenia
- Gynecomastia

Drugs precipitate digoxin toxicity includes amiodarone, quinidine, verapamil and spironolactone.



Question 67 of 329

Question Difficulty: Hard

Mr. X is complaining of anorexia, diarrhea and knee pain for 2 weeks. He also reported erectile dysfunction and photosensitive rashes.

He reported a psychiatry clinic visit a month ago and was prescribed a medication for depression. His wife reported he frequently talks about suicide.

What is the most likely causative drug?

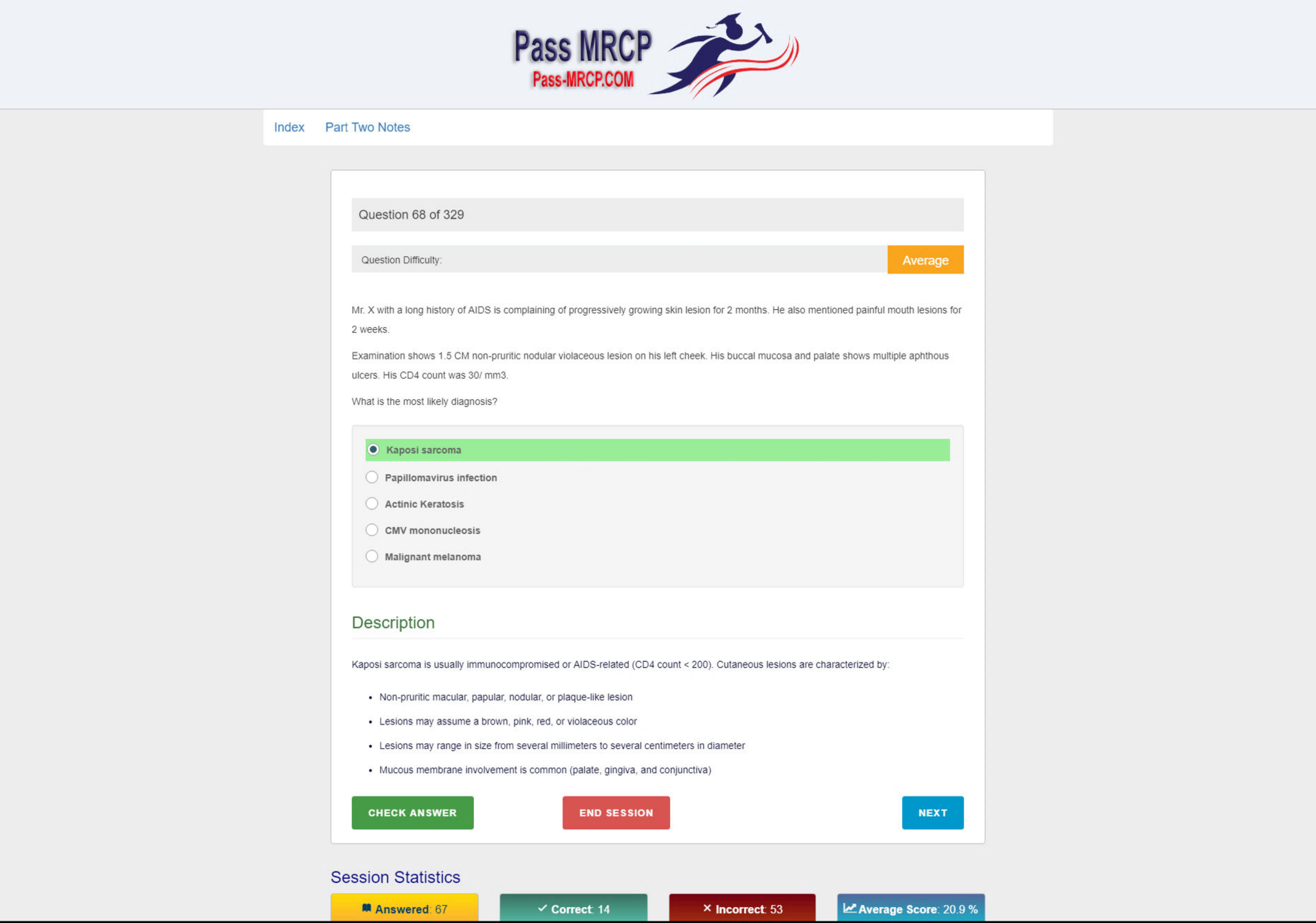
○ Haloperidol
○ Fluoxetine
○ St John's Wort
● Risperidone
○ Olanzapine

## Description

SSRIs adverse effects include:

- GIT upsets
- Increased risk of bone fractures
- Akathisia (inner restlessness particularly in the knees)
- Suicidal ideation
- Photosensitivity
- Increased risk of coronary heart disease
- Sexual dysfunction as anorgasmia, erectile dysfunction and diminished libido
- Interact with anticoagulants as warfarin and aspirin causing bleeding

Session Statistics



Question 68 of 329

Question Difficulty: Average

Mr. X with a long history of AIDS is complaining of progressively growing skin lesion for 2 months. He also mentioned painful mouth lesions for 2 weeks.

Examination shows 1.5 CM non-pruritic nodular violaceous lesion on his left cheek. His buccal mucosa and palate shows multiple aphthous ulcers. His CD4 count was 30/ mm3.

What is the most likely diagnosis?

● **Kaposi sarcoma**

○ **Papillomavirus infection**

○ **Actinic Keratosis**

○ **CMV mononucleosis**

○ **Malignant melanoma**

## Description

Kaposi sarcoma is usually immunocompromised or AIDS-related (CD4 count < 200). Cutaneous lesions are characterized by:

- Non-pruritic macular, papular, nodular, or plaque-like lesion
- Lesions may assume a brown, pink, red, or violaceous color
- Lesions may range in size from several millimeters to several centimeters in diameter
- Mucous membrane involvement is common (palate, gingiva, and conjunctiva)

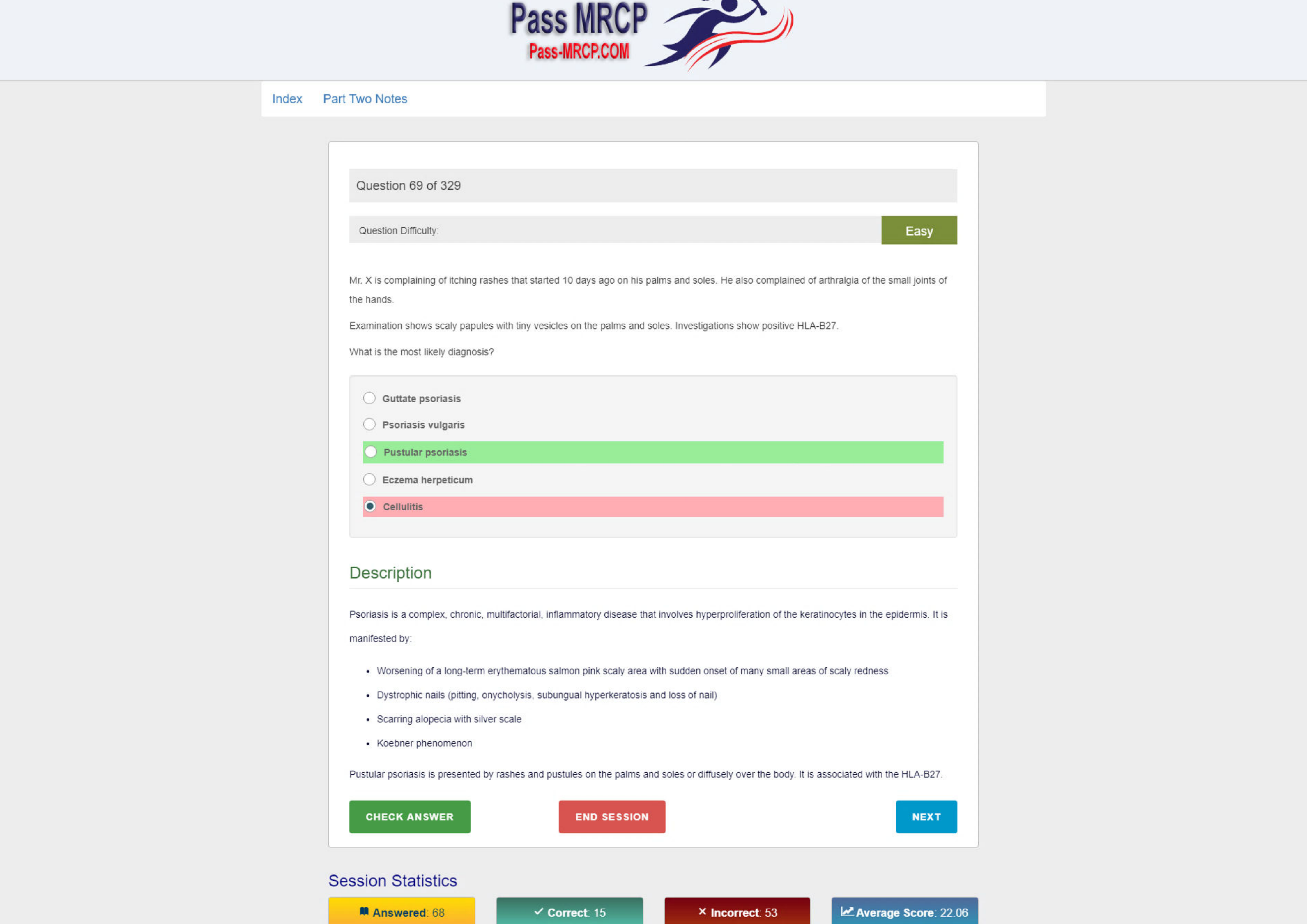
Session Statistics

**Answered**: 67

**Correct**: 14

**Incorrect**: 53

**Average Score**: 20.9 %



Question 69 of 329

Question Difficulty: **Easy**

Mr. X is complaining of itching rashes that started 10 days ago on his palms and soles. He also complained of arthralgia of the small joints of the hands.

Examination shows scaly papules with tiny vesicles on the palms and soles. Investigations show positive HLA-B27.

What is the most likely diagnosis?

○ **Guttate psoriasis**
○ **Psoriasis vulgaris**
○ **Pustular psoriasis**
○ **Eczema herpeticum**
● **Cellulitis**

## Description

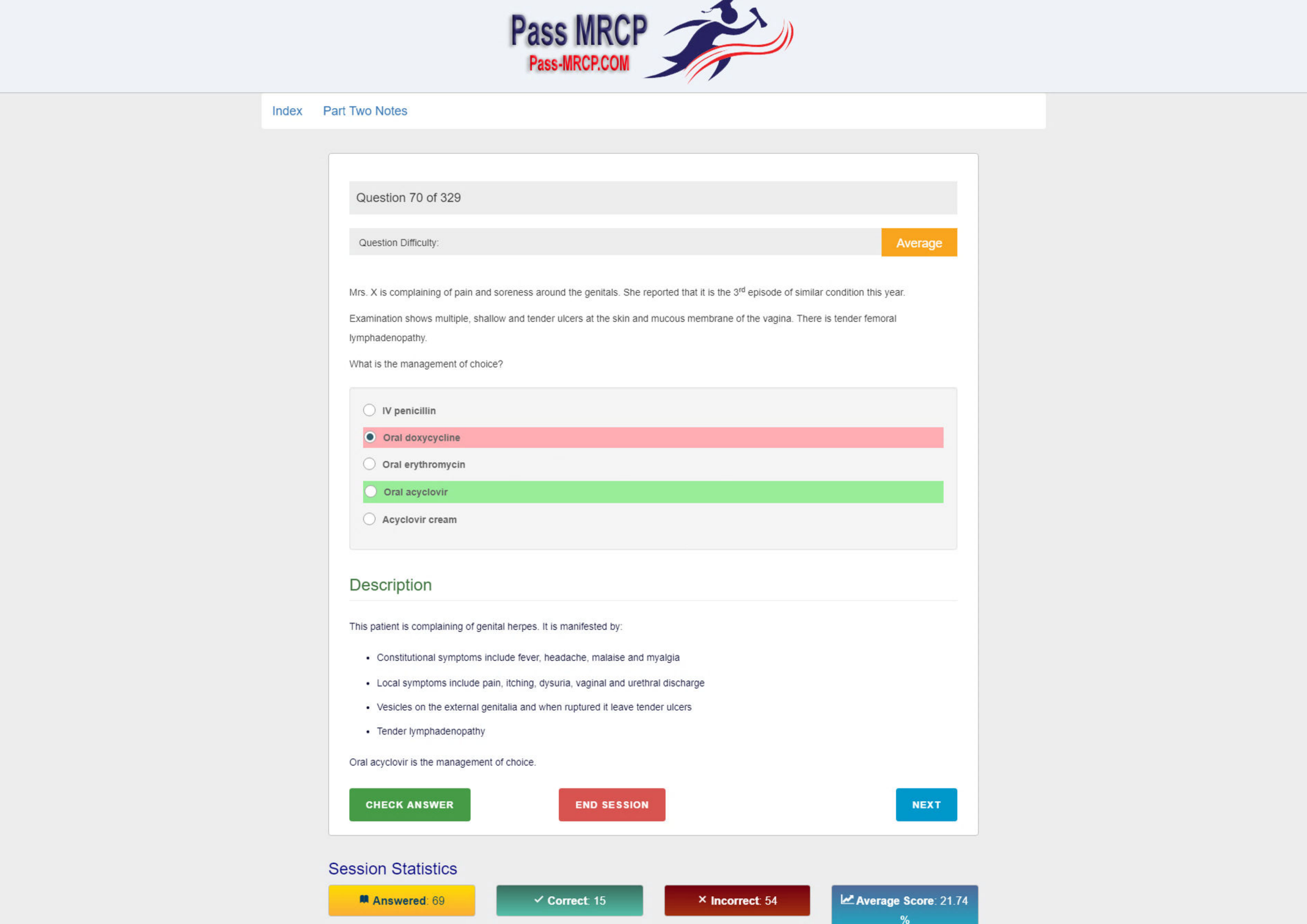
Psoriasis is a complex, chronic, multifactorial, inflammatory disease that involves hyperproliferation of the keratinocytes in the epidermis. It is manifested by:

- Worsening of a long-term erythematous salmon pink scaly area with sudden onset of many small areas of scaly redness
- Dystrophic nails (pitting, onycholysis, subungual hyperkeratosis and loss of nail)
- Scarring alopecia with silver scale
- Koebner phenomenon

Pustular psoriasis is presented by rashes and pustules on the palms and soles or diffusely over the body. It is associated with the HLA-B27.

## Session Statistics

**Answered**: 68
✓ **Correct**: 15
✕ **Incorrect**: 53
**Average Score**: 22.06



Question 70 of 329

Question Difficulty: Average

Mrs. X is complaining of pain and soreness around the genitals. She reported that it is the 3rd episode of similar condition this year.

Examination shows multiple, shallow and tender ulcers at the skin and mucous membrane of the vagina. There is tender femoral lymphadenopathy.

What is the management of choice?

○ IV penicillin
● Oral doxycycline
○ Oral erythromycin
○ Oral acyclovir
○ Acyclovir cream

## Description

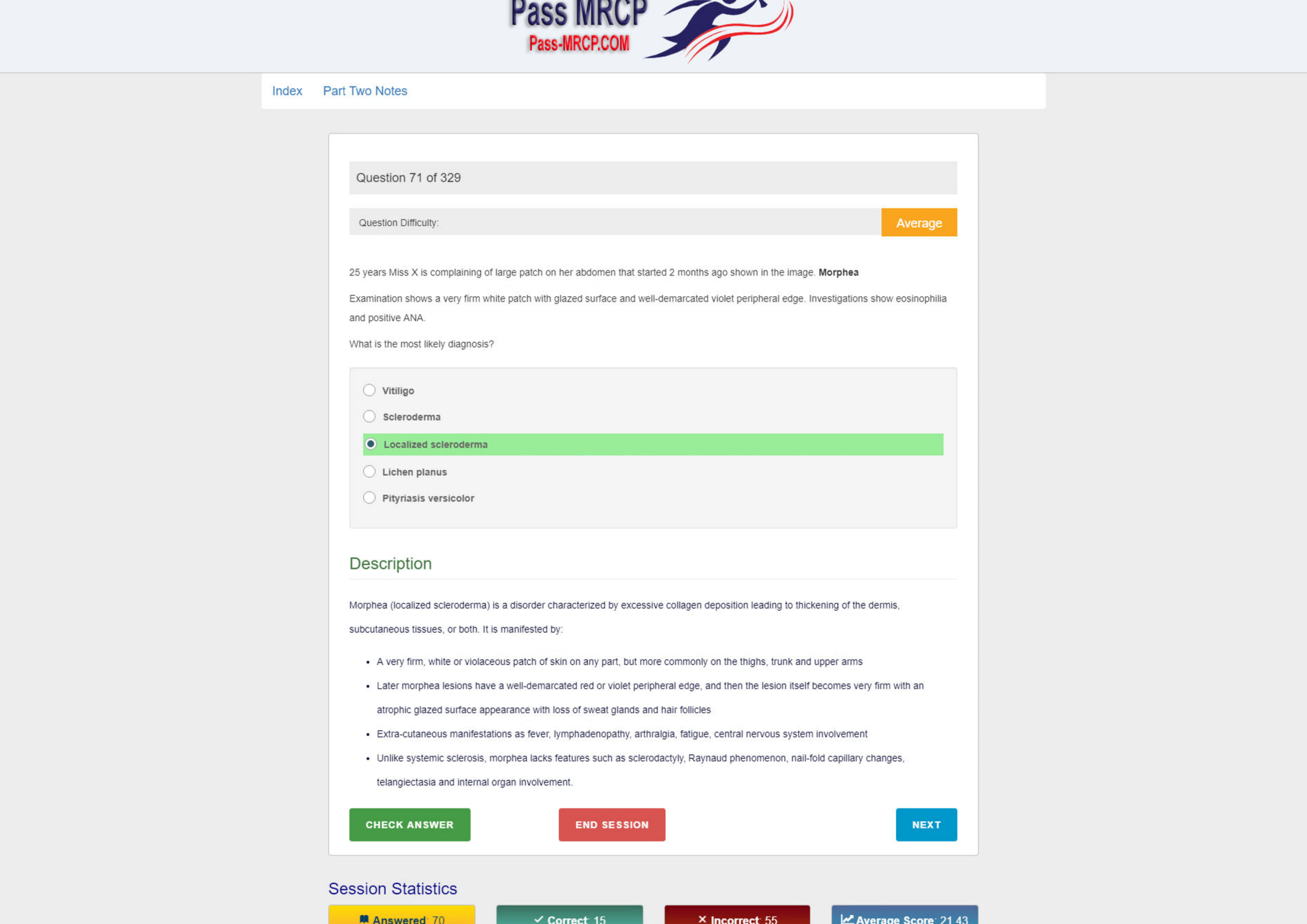
This patient is complaining of genital herpes. It is manifested by:

- Constitutional symptoms include fever, headache, malaise and myalgia
- Local symptoms include pain, itching, dysuria, vaginal and urethral discharge
- Vesicles on the external genitalia and when ruptured it leave tender ulcers
- Tender lymphadenopathy

Oral acyclovir is the management of choice.

Session Statistics

Answered: 69
✓ Correct: 15
✕ Incorrect: 54
Average Score: 21.74 %



Question 71 of 329

Question Difficulty: Average

25 years Miss X is complaining of large patch on her abdomen that started 2 months ago shown in the image. **Morphea**

Examination shows a very firm white patch with glazed surface and well-demarcated violet peripheral edge. Investigations show eosinophilia and positive ANA.

What is the most likely diagnosis?

○ **Vitiligo**
○ **Scleroderma**
● **Localized scleroderma**
○ **Lichen planus**
○ **Pityriasis versicolor**

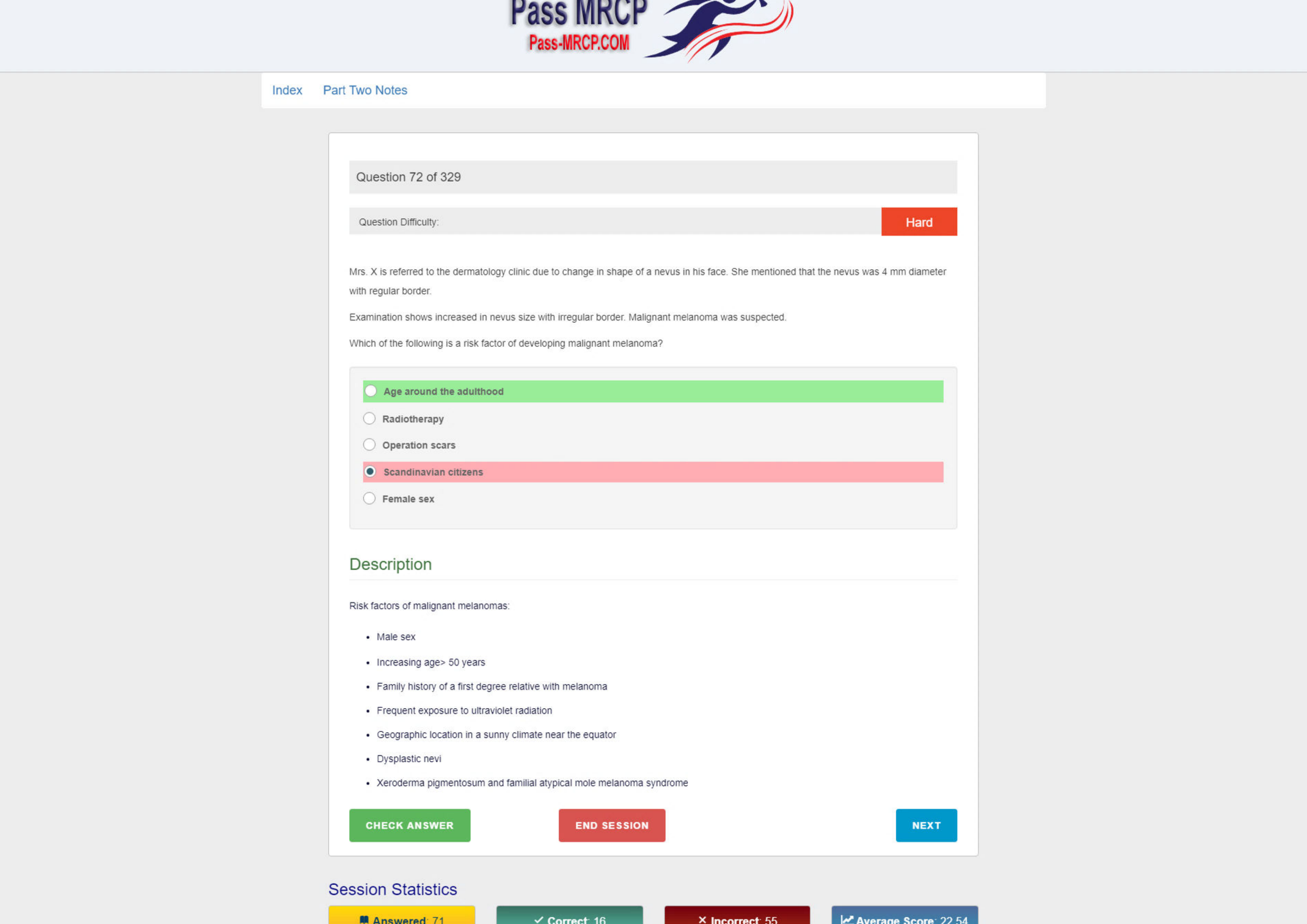
## Description

Morphea (localized scleroderma) is a disorder characterized by excessive collagen deposition leading to thickening of the dermis, subcutaneous tissues, or both. It is manifested by:

- A very firm, white or violaceous patch of skin on any part, but more commonly on the thighs, trunk and upper arms
- Later morphea lesions have a well-demarcated red or violet peripheral edge, and then the lesion itself becomes very firm with an atrophic glazed surface appearance with loss of sweat glands and hair follicles
- Extra-cutaneous manifestations as fever, lymphadenopathy, arthralgia, fatigue, central nervous system involvement
- Unlike systemic sclerosis, morphea lacks features such as sclerodactyly, Raynaud phenomenon, nail-fold capillary changes, telangiectasia and internal organ involvement.

Session Statistics

Answered: 70
✓ Correct: 15
✕ Incorrect: 55
Average Score: 21.43



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Question Difficulty: **Hard**

Mrs. X is referred to the dermatology clinic due to change in shape of a nevus in his face. She mentioned that the nevus was 4 mm diameter with regular border.

Examination shows increased in nevus size with irregular border. Malignant melanoma was suspected.

Which of the following is a risk factor of developing malignant melanoma?

○ **Age around the adulthood**
○ **Radiotherapy**
○ **Operation scars**
● **Scandinavian citizens**
○ **Female sex**

## Description

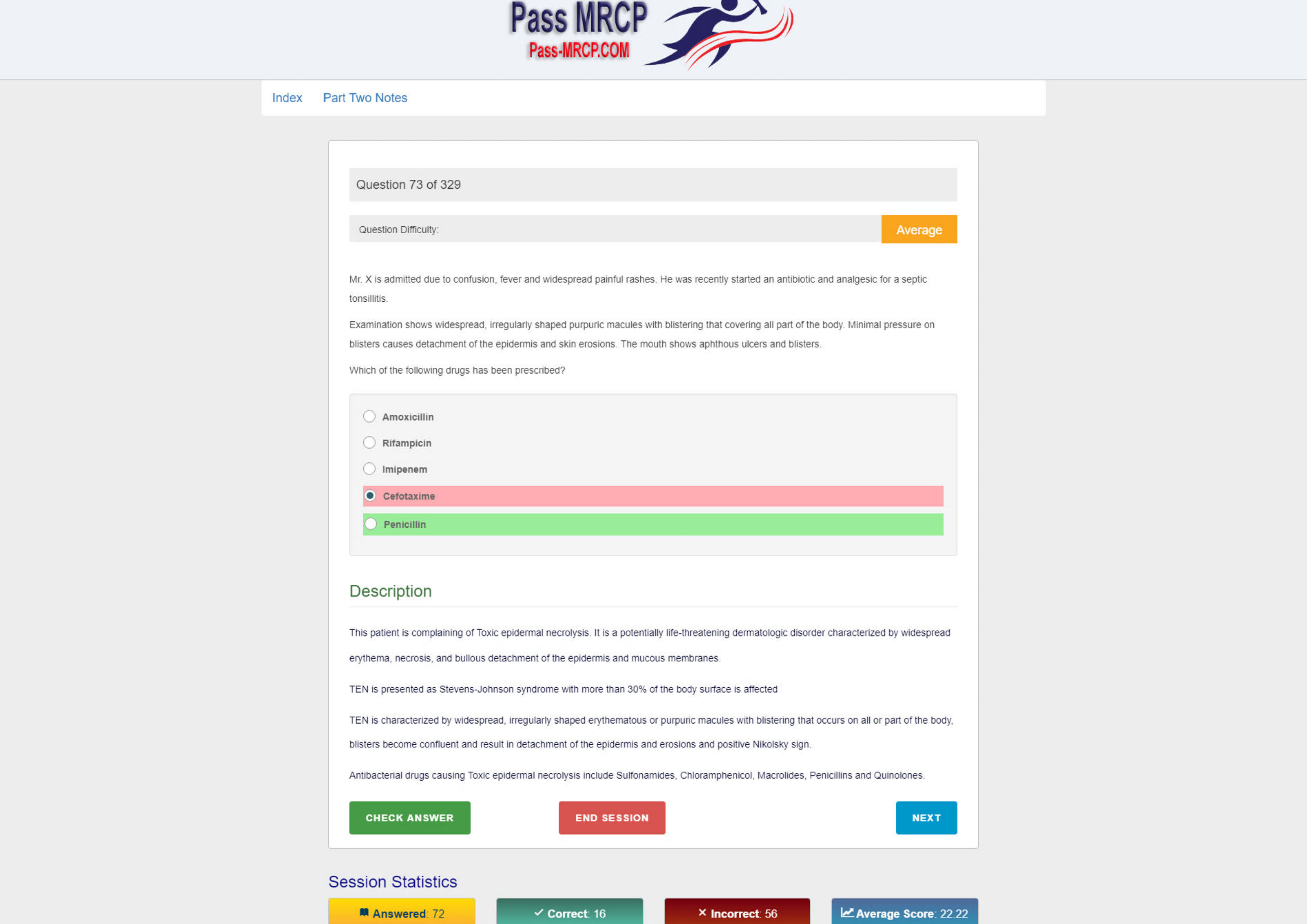
Risk factors of malignant melanomas:

- Male sex
- Increasing age> 50 years
- Family history of a first degree relative with melanoma
- Frequent exposure to ultraviolet radiation
- Geographic location in a sunny climate near the equator
- Dysplastic nevi
- Xeroderma pigmentosum and familial atypical mole melanoma syndrome

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 71
✓ Correct: 16
✕ Incorrect: 55
Average Score: 22.54



Question 73 of 329

Question Difficulty: Average

Mr. X is admitted due to confusion, fever and widespread painful rashes. He was recently started an antibiotic and analgesic for a septic tonsillitis.

Examination shows widespread, irregularly shaped purpuric macules with blistering that covering all part of the body. Minimal pressure on blisters causes detachment of the epidermis and skin erosions. The mouth shows aphthous ulcers and blisters.

Which of the following drugs has been prescribed?

○ Amoxicillin
○ Rifampicin
○ Imipenem
● Cefotaxime
○ Penicillin

## Description

This patient is complaining of Toxic epidermal necrolysis. It is a potentially life-threatening dermatologic disorder characterized by widespread erythema, necrosis, and bullous detachment of the epidermis and mucous membranes.

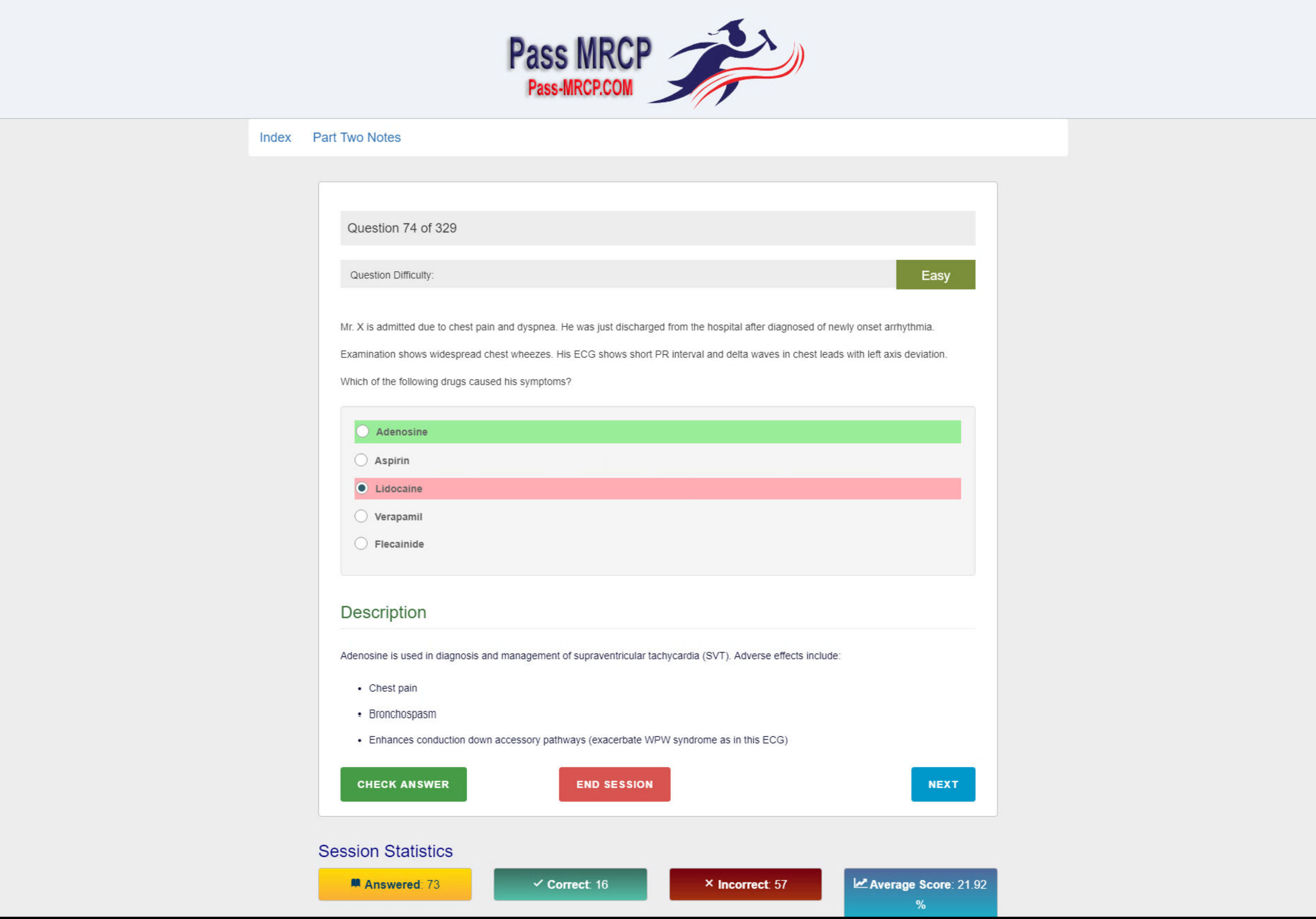
TEN is presented as Stevens-Johnson syndrome with more than 30% of the body surface is affected

TEN is characterized by widespread, irregularly shaped erythematous or purpuric macules with blistering that occurs on all or part of the body, blisters become confluent and result in detachment of the epidermis and erosions and positive Nikolsky sign.

Antibacterial drugs causing Toxic epidermal necrolysis include Sulfonamides, Chloramphenicol, Macrolides, Penicillins and Quinolones.

## Session Statistics

Answered: 72
✓ Correct: 16
✕ Incorrect: 56
Average Score: 22.22



Question 74 of 329

Question Difficulty: Easy

Mr. X is admitted due to chest pain and dyspnea. He was just discharged from the hospital after diagnosed of newly onset arrhythmia.

Examination shows widespread chest wheezes. His ECG shows short PR interval and delta waves in chest leads with left axis deviation.

Which of the following drugs caused his symptoms?

○ Adenosine
○ Aspirin
● Lidocaine
○ Verapamil
○ Flecainide

## Description

Adenosine is used in diagnosis and management of supraventricular tachycardia (SVT). Adverse effects include:

- Chest pain
- Bronchospasm
- Enhances conduction down accessory pathways (exacerbate WPW syndrome as in this ECG)

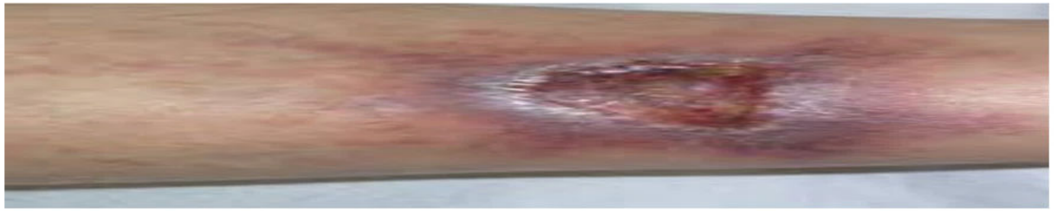
## Session Statistics

Answered: 73
✓ Correct: 16
✕ Incorrect: 57
Average Score: 21.92 %

Question 75 of 329

Question Difficulty: **Hard**

Mr. X is complaining of painful shin lesion. He has a long history of ulcerative colitis. Examination shows fever of 38 C. There is a small red papule developed to a deep, red, necrotic ulcer with a violaceous border shown in the image.



What is the most likely diagnosis?

- ● **Erythema nodosum**
- ○ **Pyoderma gangrenosum**
- ○ **Pretibial myxedema**
- ○ **Necrobiosis lipoidica diabeticorum**
- ○ **Syphilis**

What is the most likely diagnosis?

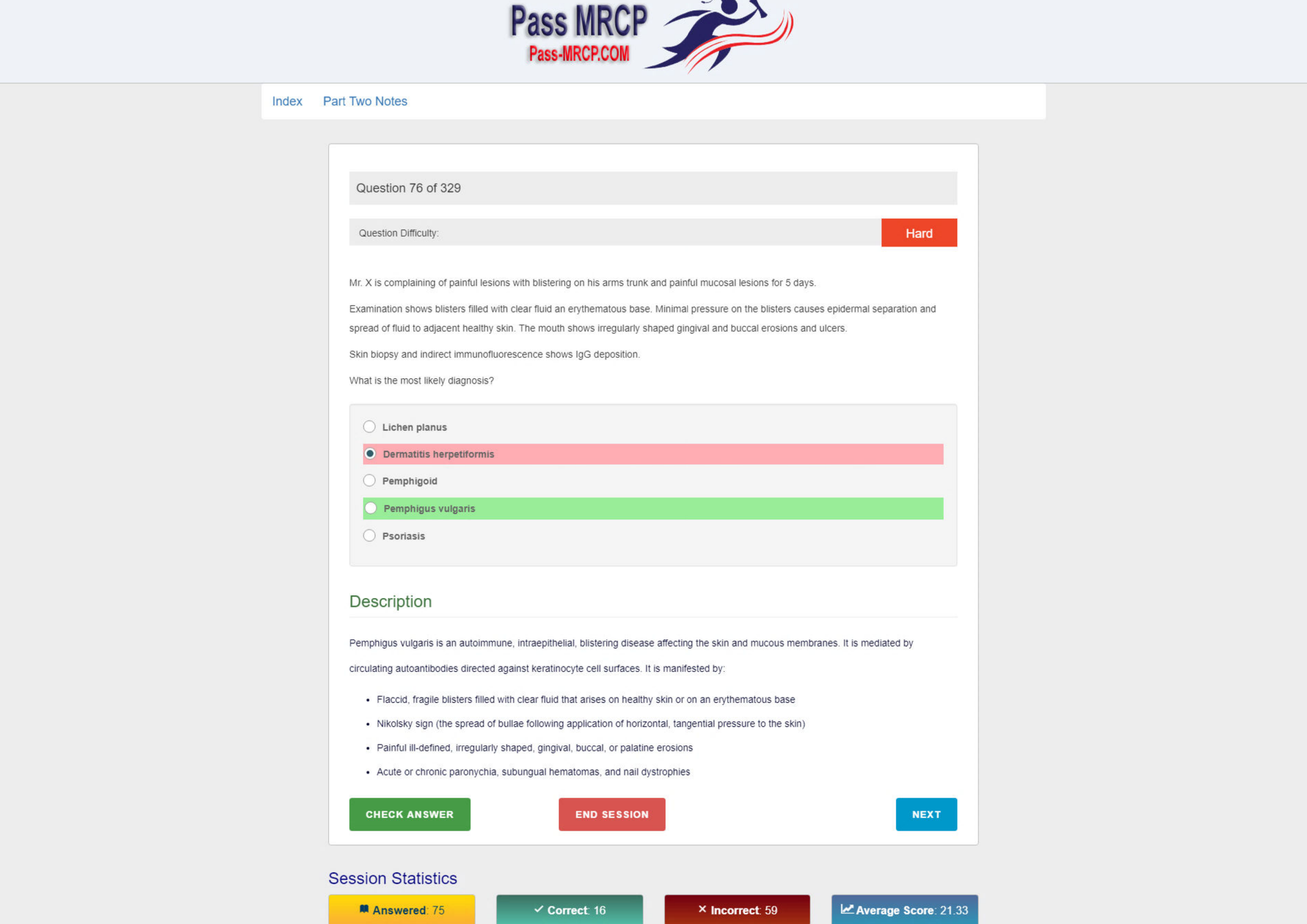
- ● **Erythema nodosum**
- ○ **Pyoderma gangrenosum**
- ○ **Pretibial myxedema**
- ○ **Necrobiosis lipoidica diabeticorum**
- ○ **Syphilis**

## Description

Pyoderma gangrenosum is a necrotizing and ulcerative cutaneous condition of uncertain etiology. It is typically located on the lower limbs.

It is presented by small red papule that progress to deep, red and necrotic ulcers with a violaceous border. Systemic symptoms as fever, myalgia may be present.

CHECK ANSWER END SESSION NEXT



Question 76 of 329

Question Difficulty: Hard

Mr. X is complaining of painful lesions with blistering on his arms trunk and painful mucosal lesions for 5 days.

Examination shows blisters filled with clear fluid an erythematous base. Minimal pressure on the blisters causes epidermal separation and spread of fluid to adjacent healthy skin. The mouth shows irregularly shaped gingival and buccal erosions and ulcers.

Skin biopsy and indirect immunofluorescence shows IgG deposition.

What is the most likely diagnosis?

○ **Lichen planus**
● **Dermatitis herpetiformis**
○ **Pemphigoid**
○ **Pemphigus vulgaris**
○ **Psoriasis**

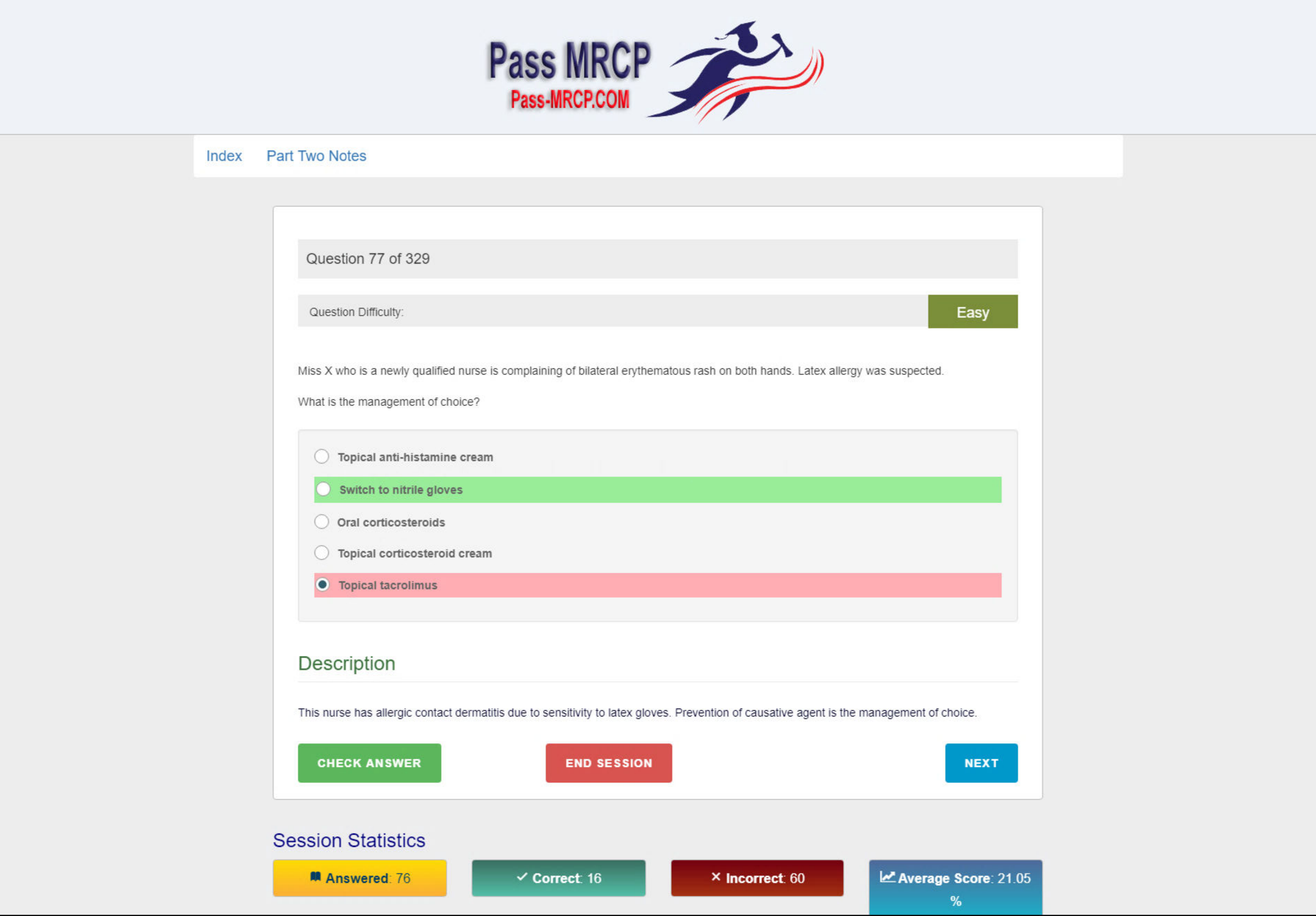
## Description

Pemphigus vulgaris is an autoimmune, intraepithelial, blistering disease affecting the skin and mucous membranes. It is mediated by circulating autoantibodies directed against keratinocyte cell surfaces. It is manifested by:

- Flaccid, fragile blisters filled with clear fluid that arises on healthy skin or on an erythematous base
- Nikolsky sign (the spread of bullae following application of horizontal, tangential pressure to the skin)
- Painful ill-defined, irregularly shaped, gingival, buccal, or palatine erosions
- Acute or chronic paronychia, subungual hematomas, and nail dystrophies

Session Statistics

**Answered**: 75
✓ **Correct**: 16
× **Incorrect**: 59
**Average Score**: 21.33



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Question Difficulty: Easy

Miss X who is a newly qualified nurse is complaining of bilateral erythematous rash on both hands. Latex allergy was suspected.

What is the management of choice?

- ○ **Topical anti-histamine cream**
- ○ **Switch to nitrile gloves**
- ○ **Oral corticosteroids**
- ○ **Topical corticosteroid cream**
- ● **Topical tacrolimus**

## Description

This nurse has allergic contact dermatitis due to sensitivity to latex gloves. Prevention of causative agent is the management of choice.

CHECK ANSWER
END SESSION
NEXT

Session Statistics

**Answered**: 76
✓ **Correct**: 16
× **Incorrect**: 60
**Average Score**: 21.05 %

Question 78 of 329

Question Difficulty: **Easy**

Mrs. X was admitted unconscious to the ED. Her daughter reported she found her on the floor of her room with a gas heater switched on but there was no flame beside her.

Her skin and mucosa are pink in color. His O2 saturation was 96% on room air. His ABG shows:

| | | |
|---|---|---|
| pH | 7.48 | (7.35-7.45) |
| PO 2 | 16 kPa | (10.0-14.0 kPa) |
| PCO 2 | 2.8 kPa | (4.4-5.9 kPa) |

Which of the following investigations is diagnostic?

○ **Toxicology screen**
● **12-lead electrocardiogram**
○ **Carboxyhemoglobin**
○ **Cardiac enzymes**
○ **Serum creatine phosphokinase**

Which of the following investigations is diagnostic?

○ **Toxicology screen**
● **12-lead electrocardiogram**
○ **Carboxyhemoglobin**
○ **Cardiac enzymes**
○ **Serum creatine phosphokinase**

## Description

This patient is suffering from carbon monoxide. It is a product of incomplete combustion of organic matter due to insufficient oxygen supply to enable complete oxidation to carbon dioxide (CO2).

Carbon monoxide has high affinity for hemoglobin resulting in a left-shift of the oxygen dissociation curve and tissue hypoxia. Signs and symptoms include:

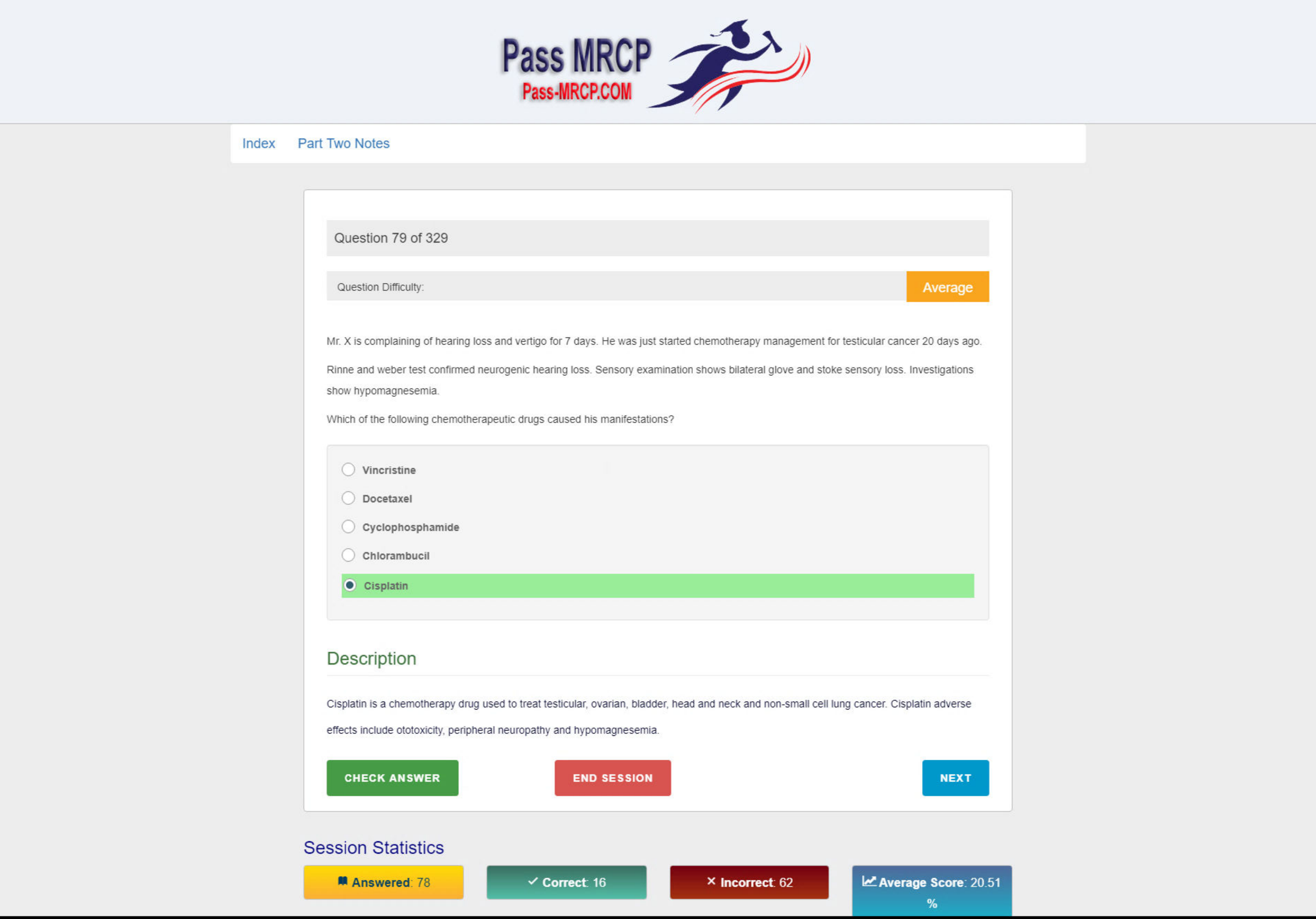
- Headache and dizziness
- Pink skin and mucosa
- Hyperpyrexia
- Convulsions
- Arrhythmia
- Respiratory arrest
- Coma and death

Carboxyhemoglobin level is diagnostic and is an indicator of prognostic values.

**CHECK ANSWER** **END SESSION** **NEXT**

## Session Statistics

**Answered**: 77 ✓ **Correct**: 16 ✕ **Incorrect**: 61 **Average Score**: 20.78 %



Question 79 of 329

Question Difficulty: Average

Mr. X is complaining of hearing loss and vertigo for 7 days. He was just started chemotherapy management for testicular cancer 20 days ago.

Rinne and weber test confirmed neurogenic hearing loss. Sensory examination shows bilateral glove and stoke sensory loss. Investigations show hypomagnesemia.

Which of the following chemotherapeutic drugs caused his manifestations?

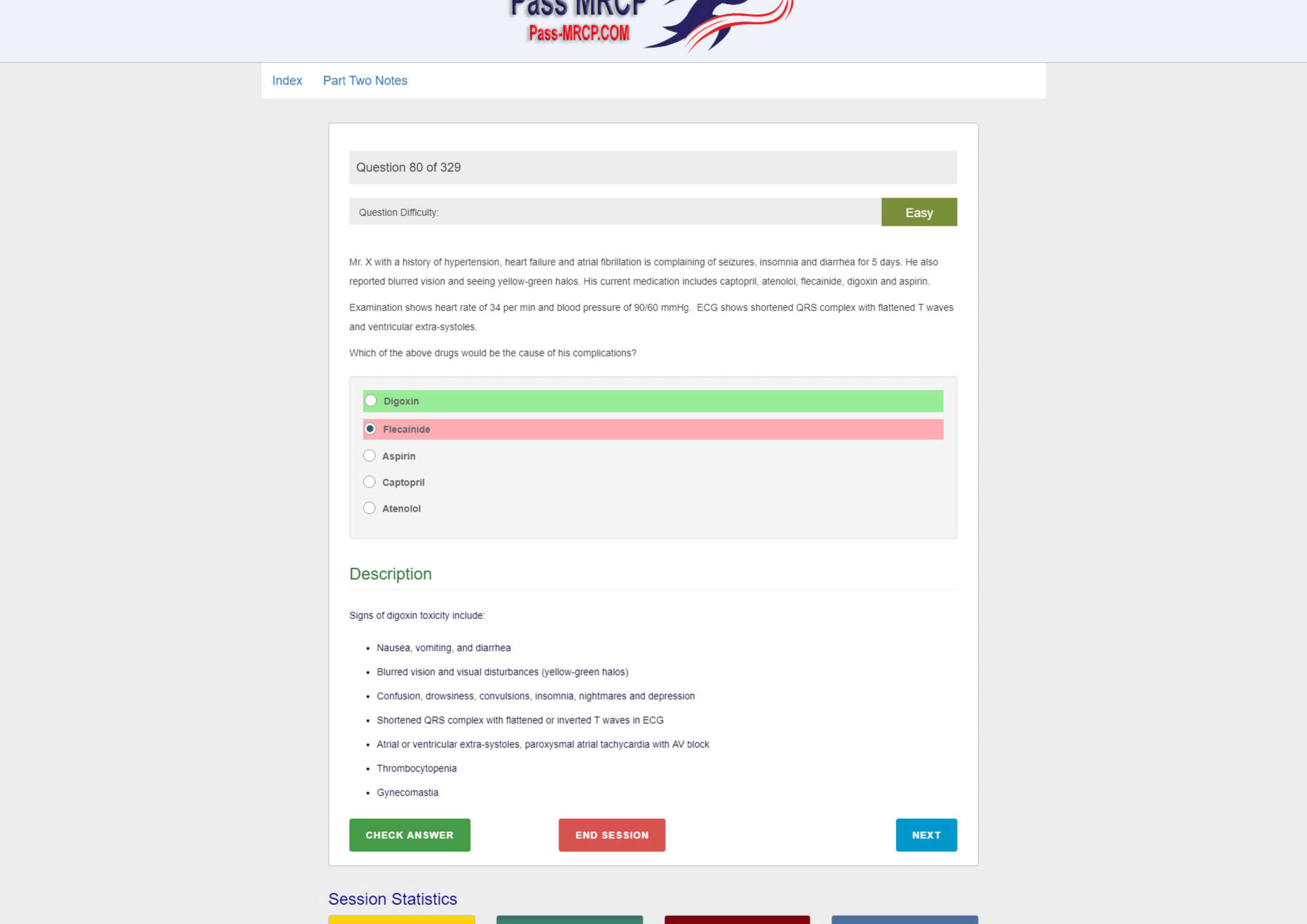
○ **Vincristine**
○ **Docetaxel**
○ **Cyclophosphamide**
○ **Chlorambucil**
● **Cisplatin**

## Description

Cisplatin is a chemotherapy drug used to treat testicular, ovarian, bladder, head and neck and non-small cell lung cancer. Cisplatin adverse effects include ototoxicity, peripheral neuropathy and hypomagnesemia.

## Session Statistics

**Answered**: 78
✓ **Correct**: 16
✕ **Incorrect**: 62
**Average Score**: 20.51 %



Question 80 of 329

Question Difficulty: Easy

Mr. X with a history of hypertension, heart failure and atrial fibrillation is complaining of seizures, insomnia and diarrhea for 5 days. He also reported blurred vision and seeing yellow-green halos. His current medication includes captopril, atenolol, flecainide, digoxin and aspirin.

Examination shows heart rate of 34 per min and blood pressure of 90/60 mmHg. ECG shows shortened QRS complex with flattened T waves and ventricular extra-systoles.

Which of the above drugs would be the cause of his complications?

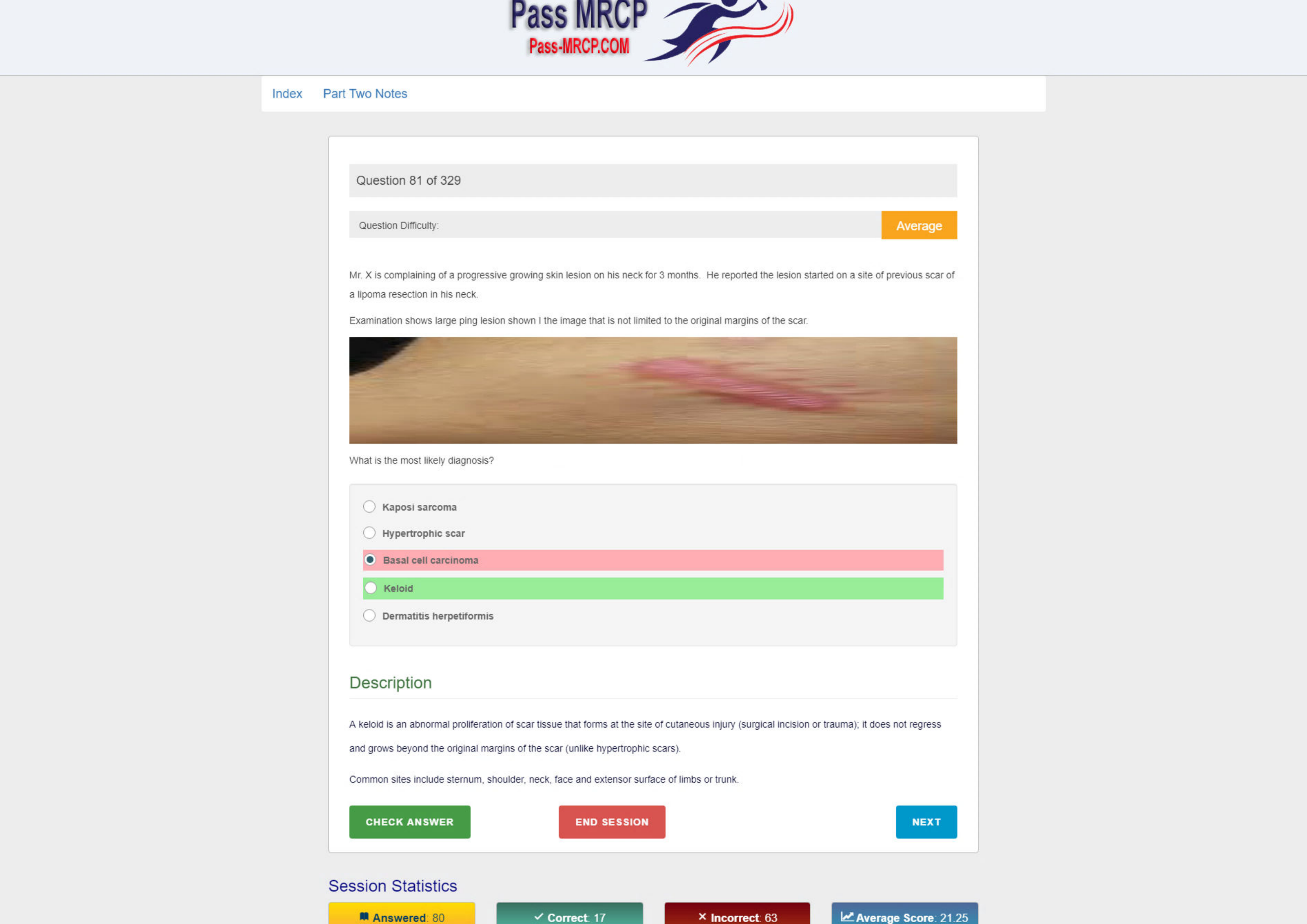
○ Digoxin
● Flecainide
○ Aspirin
○ Captopril
○ Atenolol

## Description

Signs of digoxin toxicity include:

- Nausea, vomiting, and diarrhea
- Blurred vision and visual disturbances (yellow-green halos)
- Confusion, drowsiness, convulsions, insomnia, nightmares and depression
- Shortened QRS complex with flattened or inverted T waves in ECG
- Atrial or ventricular extra-systoles, paroxysmal atrial tachycardia with AV block
- Thrombocytopenia
- Gynecomastia

Session Statistics



Question 81 of 329

Question Difficulty: Average

Mr. X is complaining of a progressive growing skin lesion on his neck for 3 months.  He reported the lesion started on a site of previous scar of a lipoma resection in his neck.

Examination shows large ping lesion shown I the image that is not limited to the original margins of the scar.

What is the most likely diagnosis?

- ○ **Kaposi sarcoma**
- ○ **Hypertrophic scar**
- ● **Basal cell carcinoma**
- ○ **Keloid**
- ○ **Dermatitis herpetiformis**

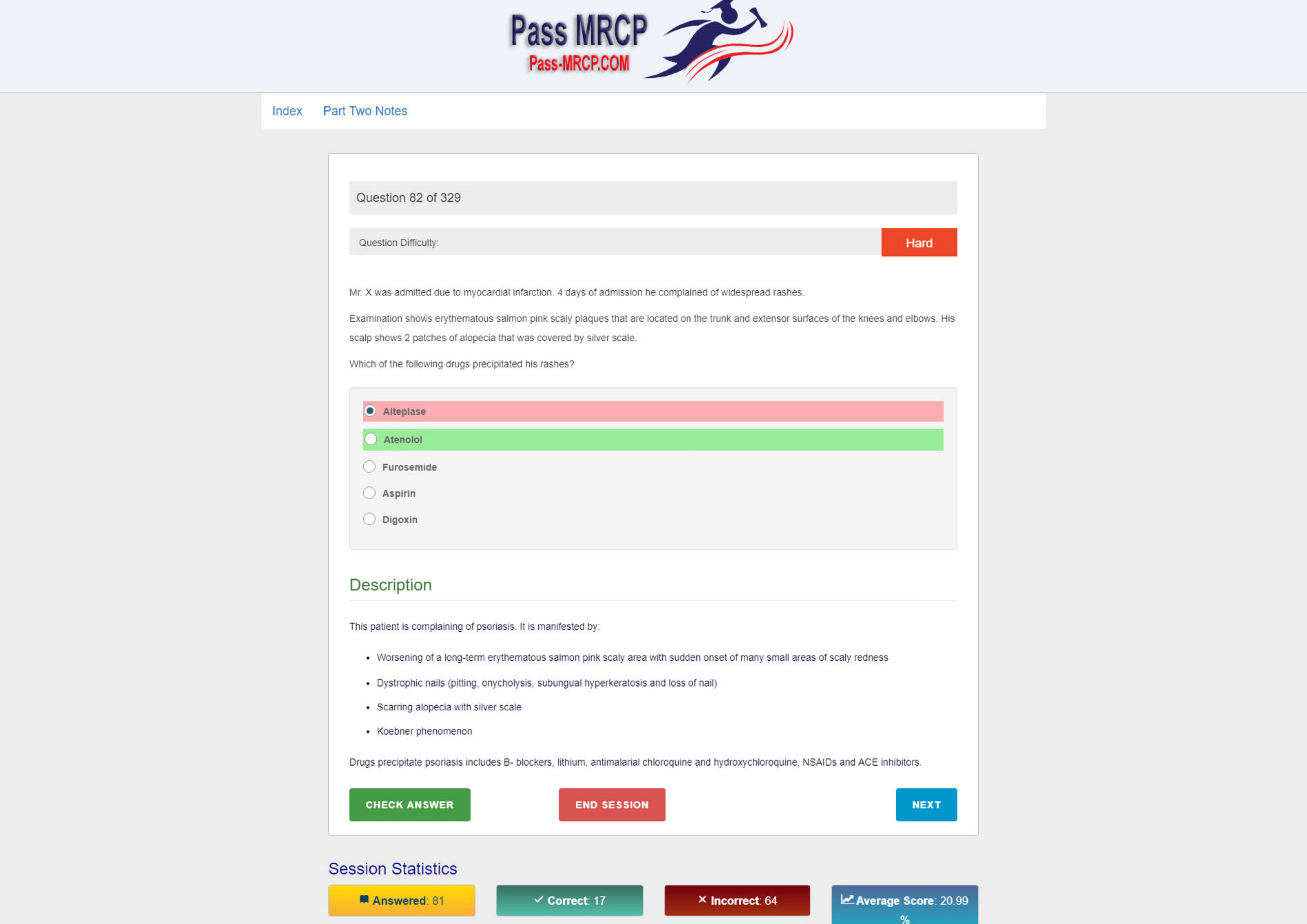
## Description

A keloid is an abnormal proliferation of scar tissue that forms at the site of cutaneous injury (surgical incision or trauma); it does not regress and grows beyond the original margins of the scar (unlike hypertrophic scars).

Common sites include sternum, shoulder, neck, face and extensor surface of limbs or trunk.

## Session Statistics

Answered: 80
✓ Correct: 17
✕ Incorrect: 63
Average Score: 21.25



Question 82 of 329

Question Difficulty: Hard

Mr. X was admitted due to myocardial infarction. 4 days of admission he complained of widespread rashes.

Examination shows erythematous salmon pink scaly plaques that are located on the trunk and extensor surfaces of the knees and elbows. His scalp shows 2 patches of alopecia that was covered by silver scale.

Which of the following drugs precipitated his rashes?

● Alteplase
○ Atenolol
○ Furosemide
○ Aspirin
○ Digoxin

## Description

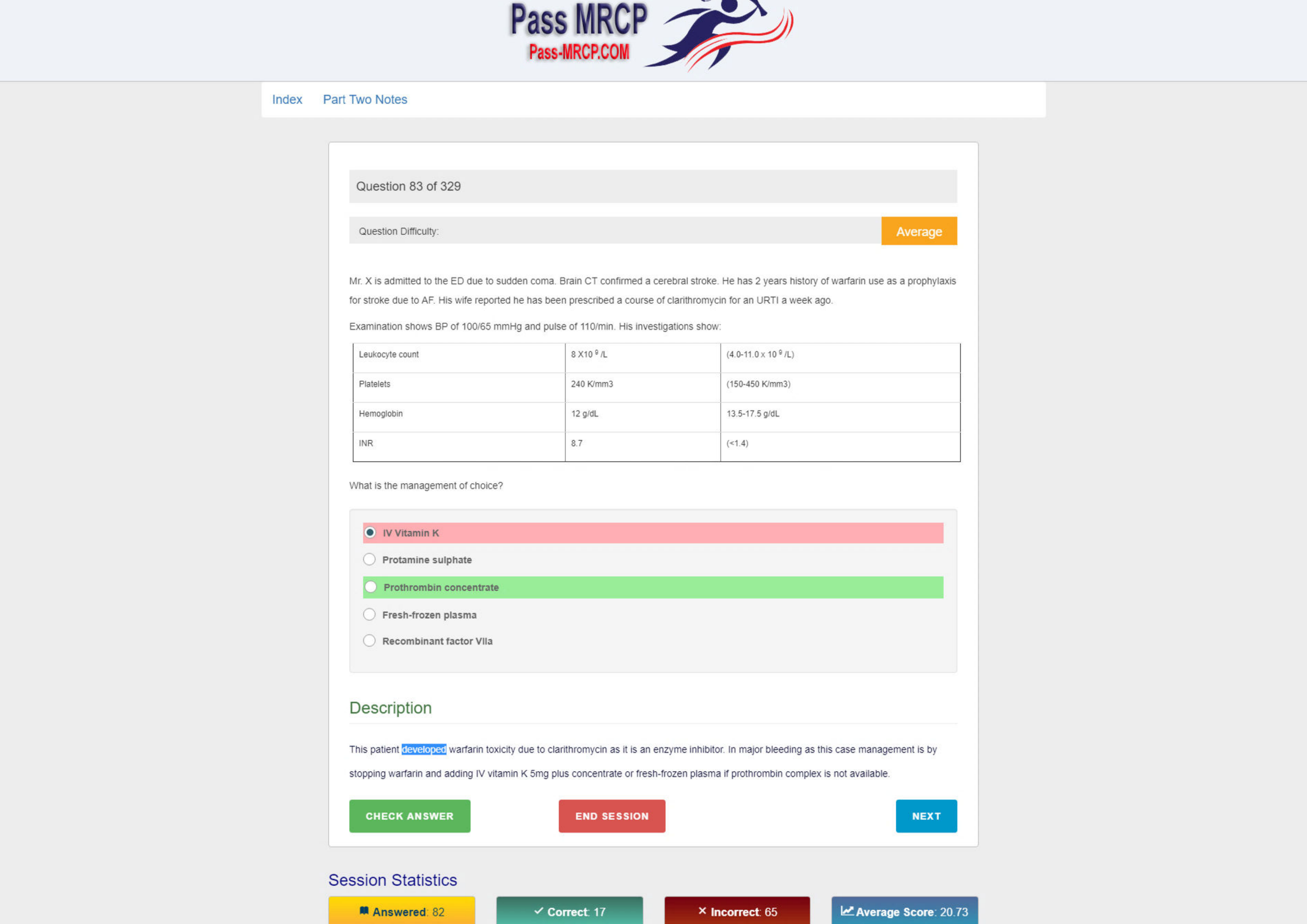
This patient is complaining of psoriasis. It is manifested by:

- Worsening of a long-term erythematous salmon pink scaly area with sudden onset of many small areas of scaly redness
- Dystrophic nails (pitting, onycholysis, subungual hyperkeratosis and loss of nail)
- Scarring alopecia with silver scale
- Koebner phenomenon

Drugs precipitate psoriasis includes B- blockers, lithium, antimalarial chloroquine and hydroxychloroquine, NSAIDs and ACE inhibitors.

Session Statistics

Answered: 81
Correct: 17
Incorrect: 64
Average Score: 20.99 %



Question 83 of 329

Question Difficulty: Average

Mr. X is admitted to the ED due to sudden coma. Brain CT confirmed a cerebral stroke. He has 2 years history of warfarin use as a prophylaxis for stroke due to AF. His wife reported he has been prescribed a course of clarithromycin for an URTI a week ago.

Examination shows BP of 100/65 mmHg and pulse of 110/min. His investigations show:

| | | |
|---|---|---|
| Leukocyte count | 8 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 240 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | 13.5-17.5 g/dL |
| INR | 8.7 | (<1.4) |

What is the management of choice?

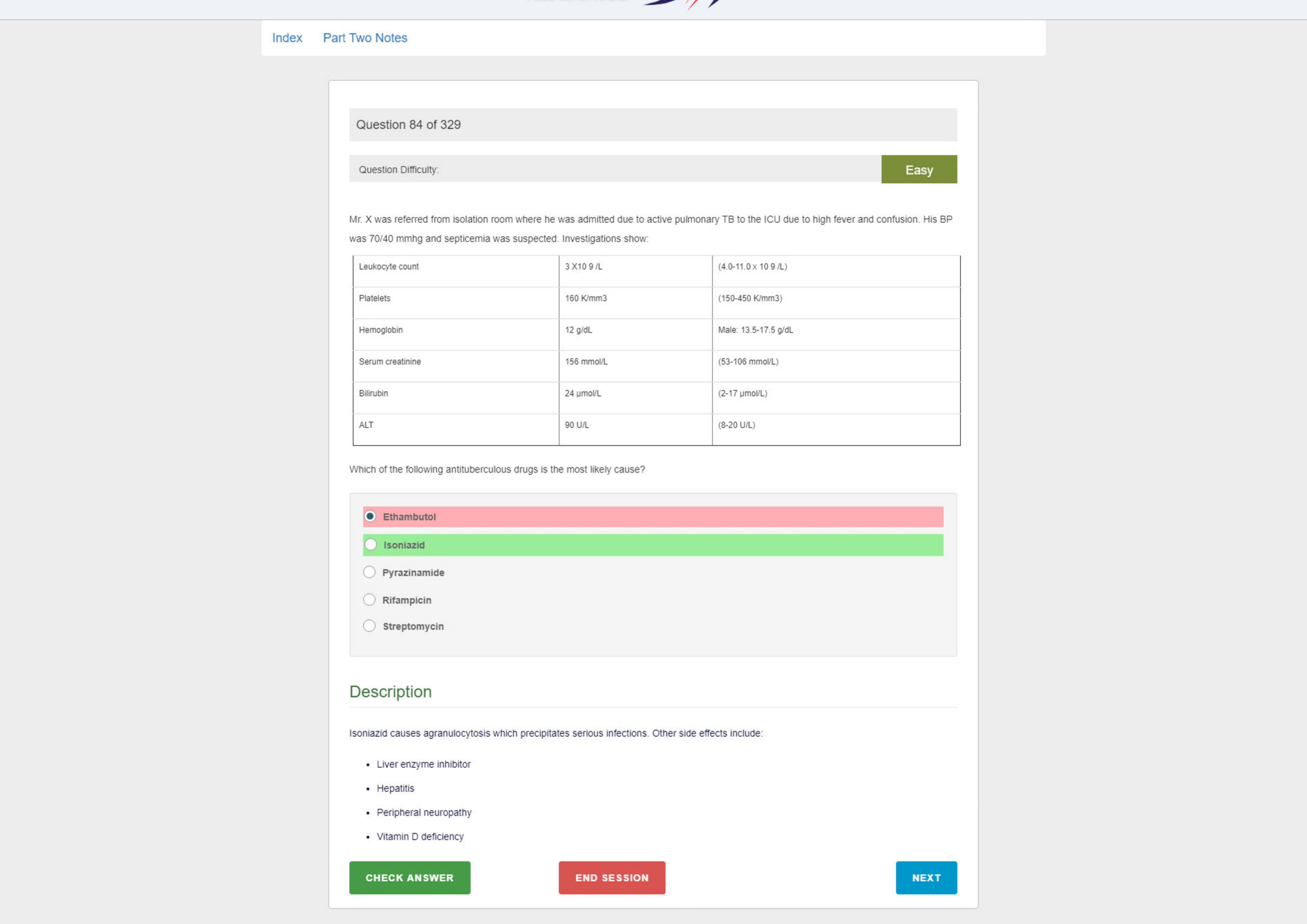
- ● **IV Vitamin K**
- ○ **Protamine sulphate**
- ○ **Prothrombin concentrate**
- ○ **Fresh-frozen plasma**
- ○ **Recombinant factor VIIa**

## Description

This patient developed warfarin toxicity due to clarithromycin as it is an enzyme inhibitor. In major bleeding as this case management is by stopping warfarin and adding IV vitamin K 5mg plus concentrate or fresh-frozen plasma if prothrombin complex is not available.

Session Statistics

**Answered**: 82 | ✓ **Correct**: 17 | ✕ **Incorrect**: 65 | **Average Score**: 20.73



Question 84 of 329

Question Difficulty: Easy

Mr. X was referred from isolation room where he was admitted due to active pulmonary TB to the ICU due to high fever and confusion. His BP was 70/40 mmhg and septicemia was suspected. Investigations show:

| | | |
|---|---|---|
| Leukocyte count | 3 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 160 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | Male: 13.5-17.5 g/dL |
| Serum creatinine | 156 mmol/L | (53-106 mmol/L) |
| Bilirubin | 24 µmol/L | (2-17 µmol/L) |
| ALT | 90 U/L | (8-20 U/L) |

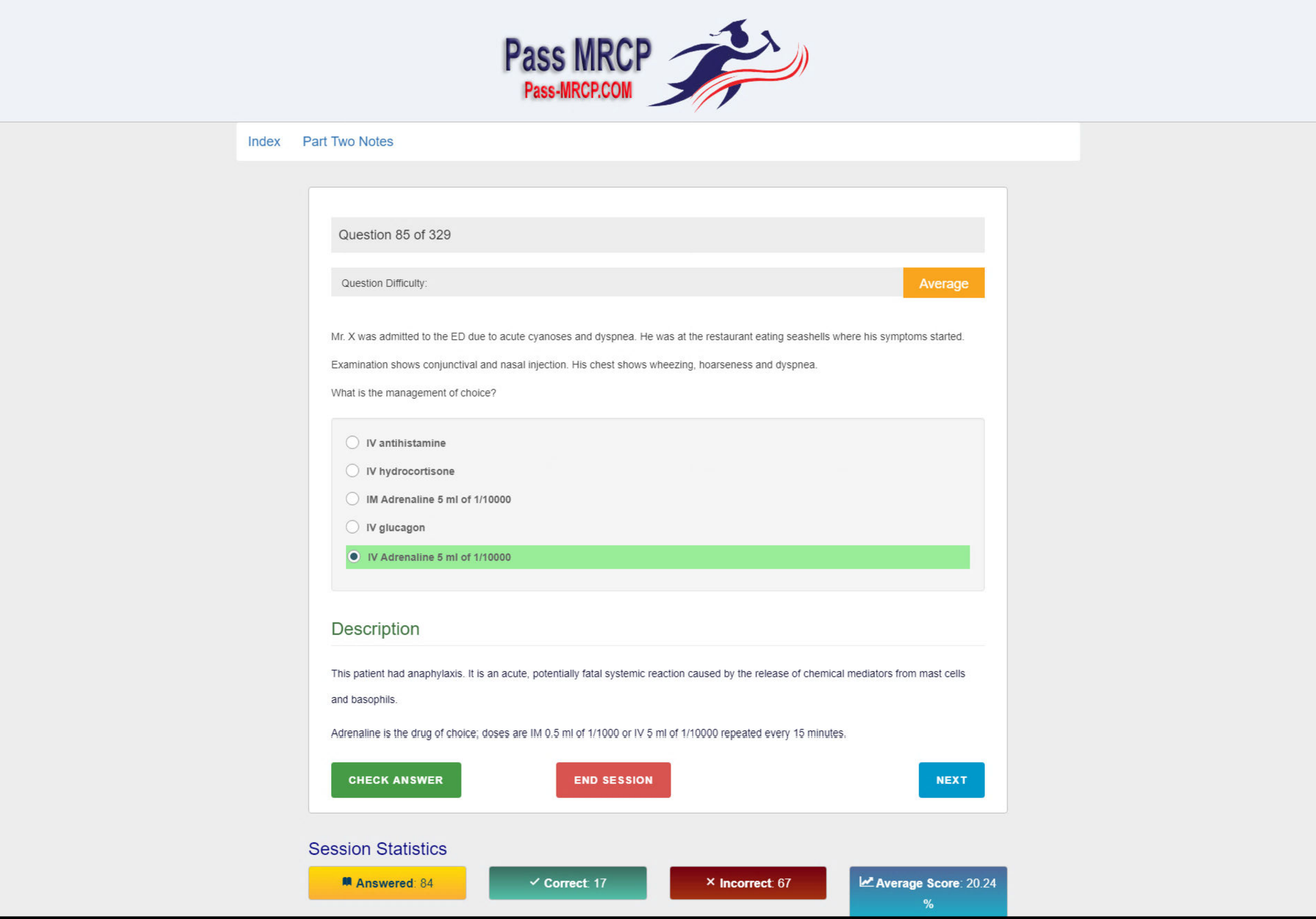
Which of the following antituberculous drugs is the most likely cause?

● **Ethambutol**
○ **Isoniazid**
○ **Pyrazinamide**
○ **Rifampicin**
○ **Streptomycin**

## Description

Isoniazid causes agranulocytosis which precipitates serious infections. Other side effects include:

- Liver enzyme inhibitor
- Hepatitis
- Peripheral neuropathy
- Vitamin D deficiency



Question 85 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to acute cyanoses and dyspnea. He was at the restaurant eating seashells where his symptoms started.

Examination shows conjunctival and nasal injection. His chest shows wheezing, hoarseness and dyspnea.

What is the management of choice?

- ○ **IV antihistamine**
- ○ **IV hydrocortisone**
- ○ **IM Adrenaline 5 ml of 1/10000**
- ○ **IV glucagon**
- ● **IV Adrenaline 5 ml of 1/10000**

## Description

This patient had anaphylaxis. It is an acute, potentially fatal systemic reaction caused by the release of chemical mediators from mast cells and basophils.

Adrenaline is the drug of choice; doses are IM 0.5 ml of 1/1000 or IV 5 ml of 1/10000 repeated every 15 minutes.

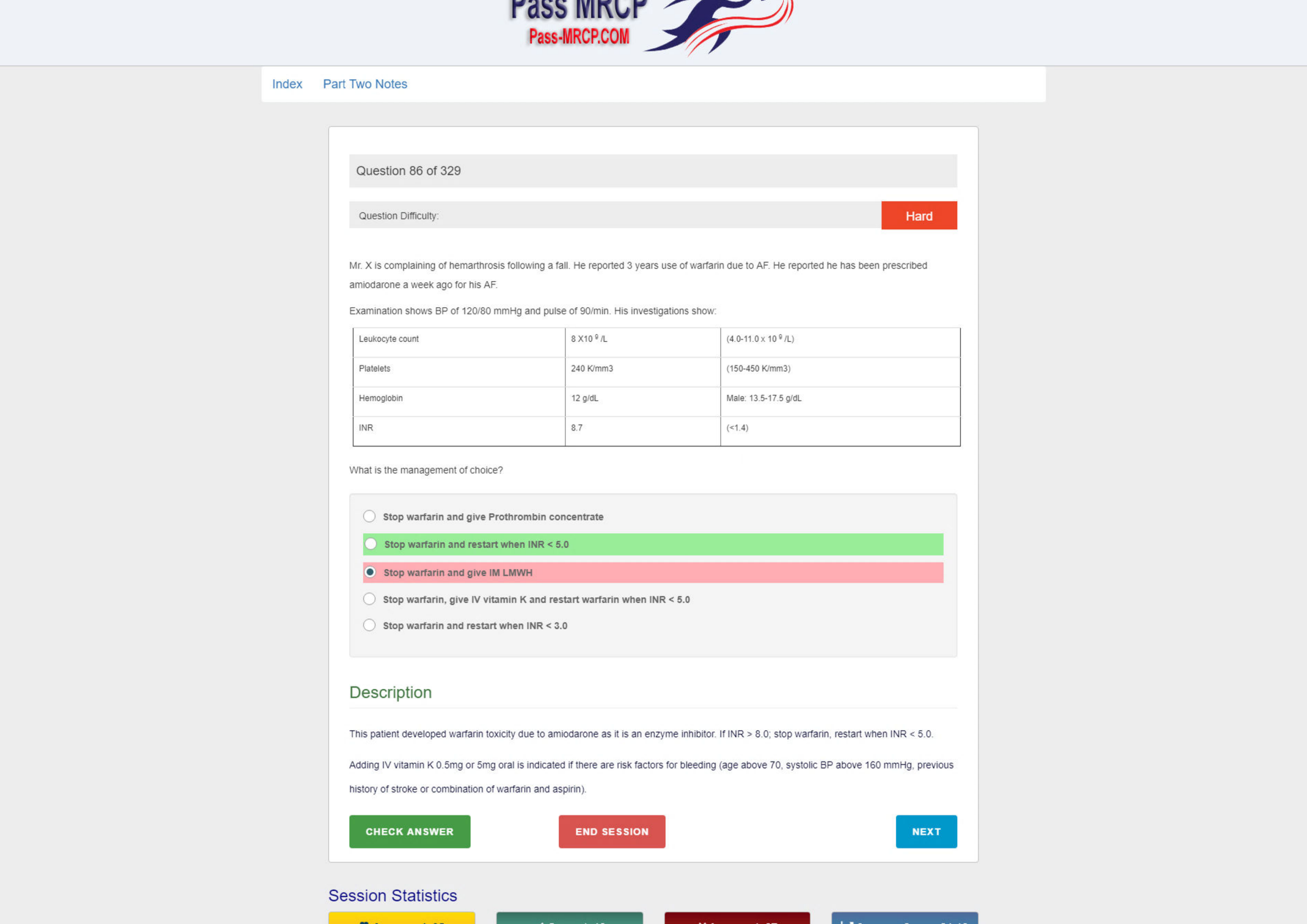
## Session Statistics

**Answered**: 84

✓ **Correct**: 17

✕ **Incorrect**: 67

**Average Score**: 20.24 %



Question 86 of 329

Question Difficulty: **Hard**

Mr. X is complaining of hemarthrosis following a fall. He reported 3 years use of warfarin due to AF. He reported he has been prescribed amiodarone a week ago for his AF.

Examination shows BP of 120/80 mmHg and pulse of 90/min. His investigations show:

| | | |
|---|---|---|
| Leukocyte count | 8 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 240 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | Male: 13.5-17.5 g/dL |
| INR | 8.7 | (<1.4) |

What is the management of choice?

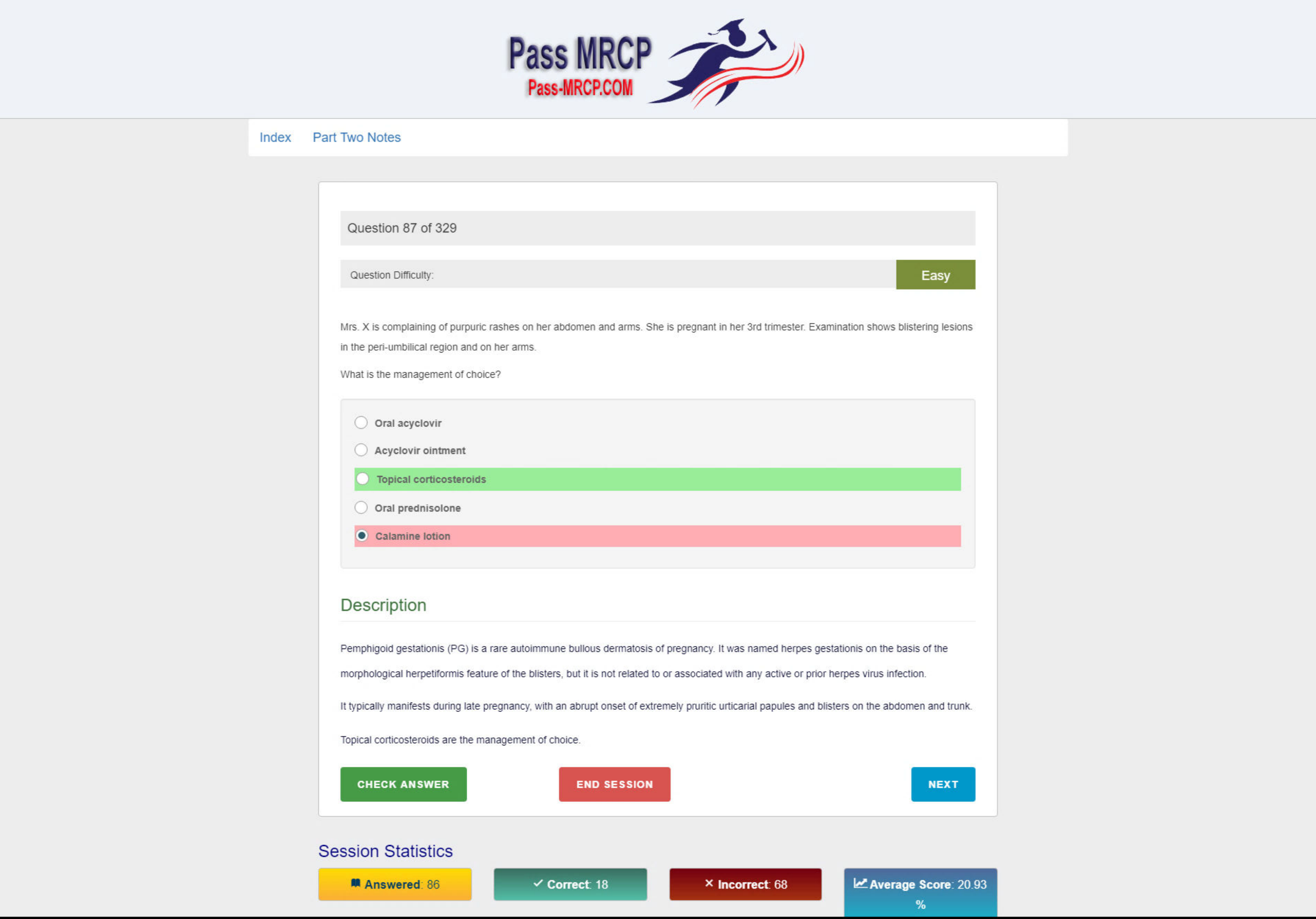
- ○ **Stop warfarin and give Prothrombin concentrate**
- ○ **Stop warfarin and restart when INR < 5.0**
- ● **Stop warfarin and give IM LMWH**
- ○ **Stop warfarin, give IV vitamin K and restart warfarin when INR < 5.0**
- ○ **Stop warfarin and restart when INR < 3.0**

## Description

This patient developed warfarin toxicity due to amiodarone as it is an enzyme inhibitor. If INR > 8.0; stop warfarin, restart when INR < 5.0.

Adding IV vitamin K 0.5mg or 5mg oral is indicated if there are risk factors for bleeding (age above 70, systolic BP above 160 mmHg, previous history of stroke or combination of warfarin and aspirin).

Session Statistics



Question 87 of 329

Question Difficulty: Easy

Mrs. X is complaining of purpuric rashes on her abdomen and arms. She is pregnant in her 3rd trimester. Examination shows blistering lesions in the peri-umbilical region and on her arms.

What is the management of choice?

- ○ Oral acyclovir
- ○ Acyclovir ointment
- ○ Topical corticosteroids
- ○ Oral prednisolone
- ● Calamine lotion

## Description

Pemphigoid gestationis (PG) is a rare autoimmune bullous dermatosis of pregnancy. It was named herpes gestationis on the basis of the morphological herpetiformis feature of the blisters, but it is not related to or associated with any active or prior herpes virus infection.

It typically manifests during late pregnancy, with an abrupt onset of extremely pruritic urticarial papules and blisters on the abdomen and trunk.

Topical corticosteroids are the management of choice.

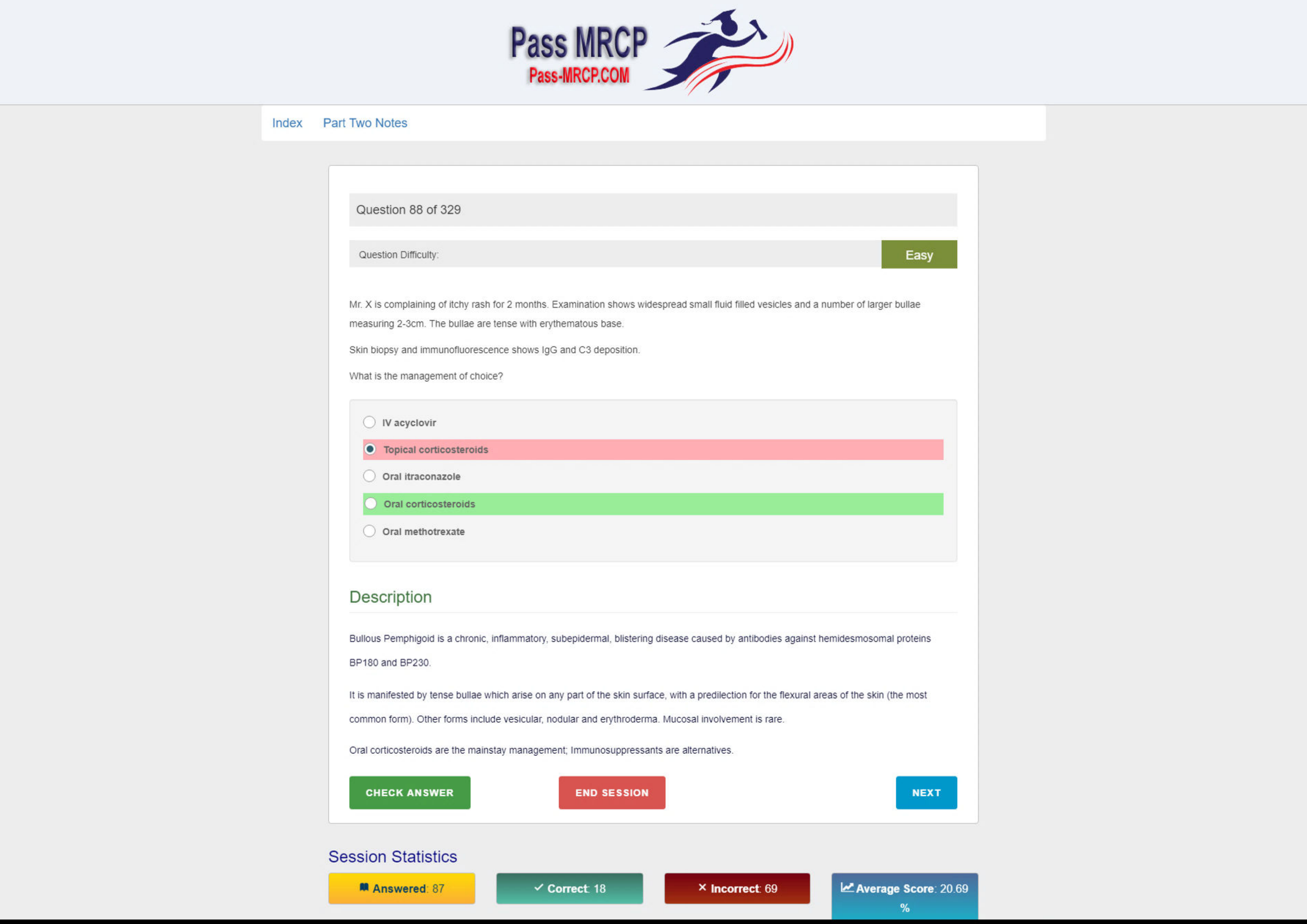
Session Statistics

Answered: 86

✓ Correct: 18

✕ Incorrect: 68

Average Score: 20.93 %



Question 88 of 329

Question Difficulty: **Easy**

Mr. X is complaining of itchy rash for 2 months. Examination shows widespread small fluid filled vesicles and a number of larger bullae measuring 2-3cm. The bullae are tense with erythematous base.

Skin biopsy and immunofluorescence shows IgG and C3 deposition.

What is the management of choice?

- ○ **IV acyclovir**
- ● **Topical corticosteroids**
- ○ **Oral itraconazole**
- ○ **Oral corticosteroids**
- ○ **Oral methotrexate**

## Description

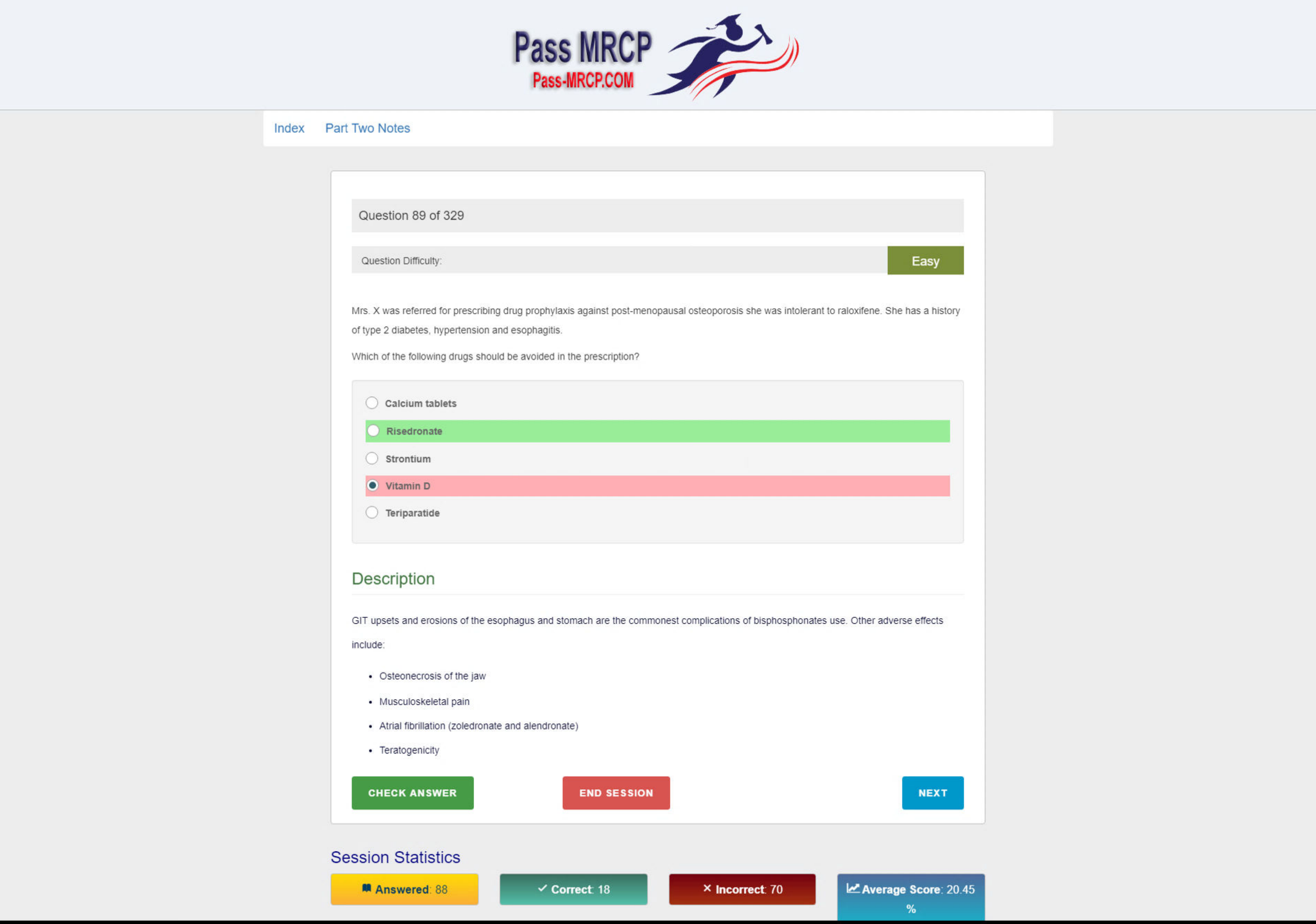
Bullous Pemphigoid is a chronic, inflammatory, subepidermal, blistering disease caused by antibodies against hemidesmosomal proteins BP180 and BP230.

It is manifested by tense bullae which arise on any part of the skin surface, with a predilection for the flexural areas of the skin (the most common form). Other forms include vesicular, nodular and erythroderma. Mucosal involvement is rare.

Oral corticosteroids are the mainstay management; Immunosuppressants are alternatives.

## Session Statistics

**Answered**: 87
✓ **Correct**: 18
✕ **Incorrect**: 69
**Average Score**: 20.69 %



Question 89 of 329

Question Difficulty: **Easy**

Mrs. X was referred for prescribing drug prophylaxis against post-menopausal osteoporosis she was intolerant to raloxifene. She has a history of type 2 diabetes, hypertension and esophagitis.

Which of the following drugs should be avoided in the prescription?

○ **Calcium tablets**
○ **Risedronate**
○ **Strontium**
● **Vitamin D**
○ **Teriparatide**

## Description

GIT upsets and erosions of the esophagus and stomach are the commonest complications of bisphosphonates use. Other adverse effects include:

- Osteonecrosis of the jaw
- Musculoskeletal pain
- Atrial fibrillation (zoledronate and alendronate)
- Teratogenicity

## Session Statistics

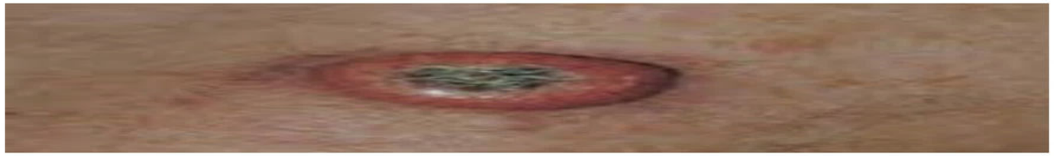
**Answered**: 88
✓ **Correct**: 18
× **Incorrect**: 70
**Average Score**: 20.45 %

## Question 90 of 329

Question Difficulty: **Easy**

Mr. X is complaining of rapidly growing skin lesion on his right cheek which started a week ago.

Examination shows the lesion started as 1.5 Cm in diameter red papule but later formed a crater filled centrally with yellow/brown material shown in the image.



What is the most likely diagnosis?

- ● **Basal cell carcinoma**
- ○ **Squamous cell carcinoma**
- ○ **Keratoacanthoma**
- ○ **Seborrheic keratosis**
- ○ **Malignant melanoma**

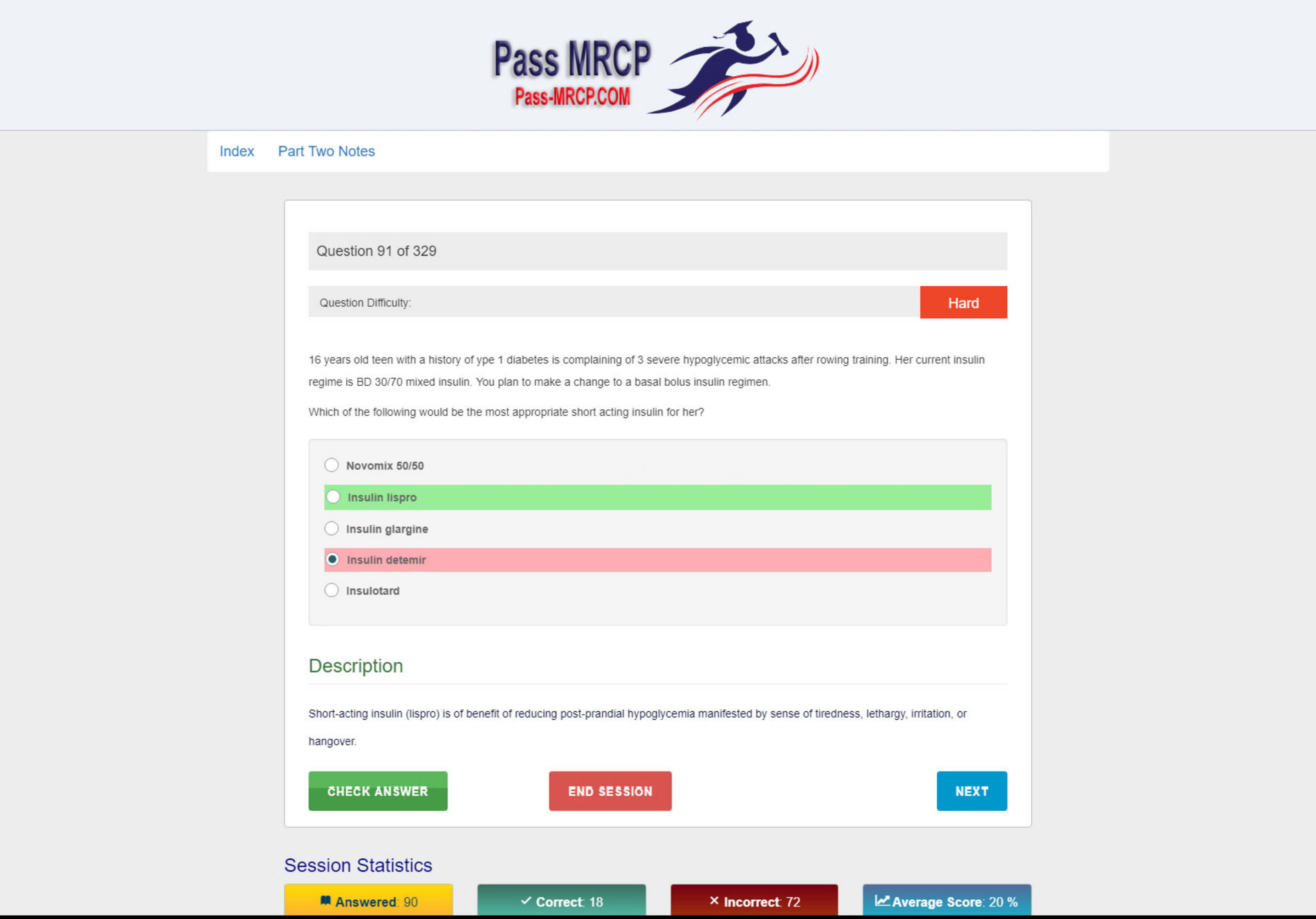
- ● **Basal cell carcinoma**
- ○ **Squamous cell carcinoma**
- ○ **Keratoacanthoma**
- ○ **Seborrheic keratosis**
- ○ **Malignant melanoma**

## Description

Keratoacanthoma (KA) is a relatively common low-grade tumor that originates in the pilosebaceous glands and closely resembles squamous cell carcinoma (SCC).

Keratoacanthoma typically grows rapidly, attaining 1-2 cm within weeks, followed by a slow involution period lasting up to 1 year and leaving a residual scar.

Lesion typically is solitary, roundish, skin-colored or reddish papule that rapidly progress to dome-shaped nodule with a smooth shiny surface and a central crateriform ulceration or keratin plug that may project like a horn.



Question 91 of 329

Question Difficulty: Hard

16 years old teen with a history of ype 1 diabetes is complaining of 3 severe hypoglycemic attacks after rowing training. Her current insulin regime is BD 30/70 mixed insulin. You plan to make a change to a basal bolus insulin regimen.

Which of the following would be the most appropriate short acting insulin for her?

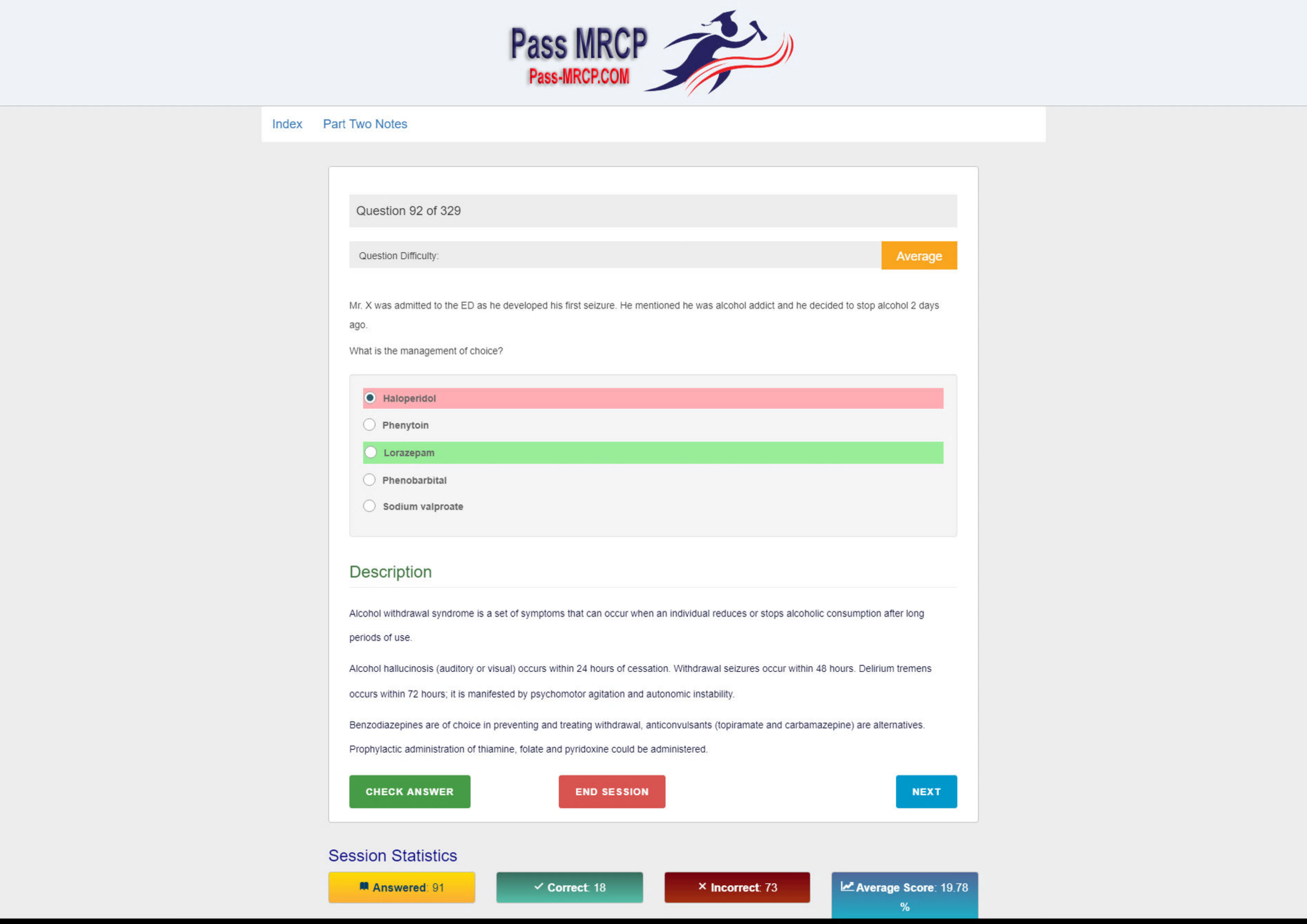
- ○ **Novomix 50/50**
- ○ **Insulin lispro**
- ○ **Insulin glargine**
- ● **Insulin detemir**
- ○ **Insulotard**

## Description

Short-acting insulin (lispro) is of benefit of reducing post-prandial hypoglycemia manifested by sense of tiredness, lethargy, irritation, or hangover.

## Session Statistics

**Answered**: 90
**Correct**: 18
**Incorrect**: 72
**Average Score**: 20 %



Question 92 of 329

Question Difficulty: Average

Mr. X was admitted to the ED as he developed his first seizure. He mentioned he was alcohol addict and he decided to stop alcohol 2 days ago.

What is the management of choice?

- ● Haloperidol
- ○ Phenytoin
- ○ Lorazepam
- ○ Phenobarbital
- ○ Sodium valproate

## Description

Alcohol withdrawal syndrome is a set of symptoms that can occur when an individual reduces or stops alcoholic consumption after long periods of use.

Alcohol hallucinosis (auditory or visual) occurs within 24 hours of cessation. Withdrawal seizures occur within 48 hours. Delirium tremens occurs within 72 hours; it is manifested by psychomotor agitation and autonomic instability.

Benzodiazepines are of choice in preventing and treating withdrawal, anticonvulsants (topiramate and carbamazepine) are alternatives. Prophylactic administration of thiamine, folate and pyridoxine could be administered.

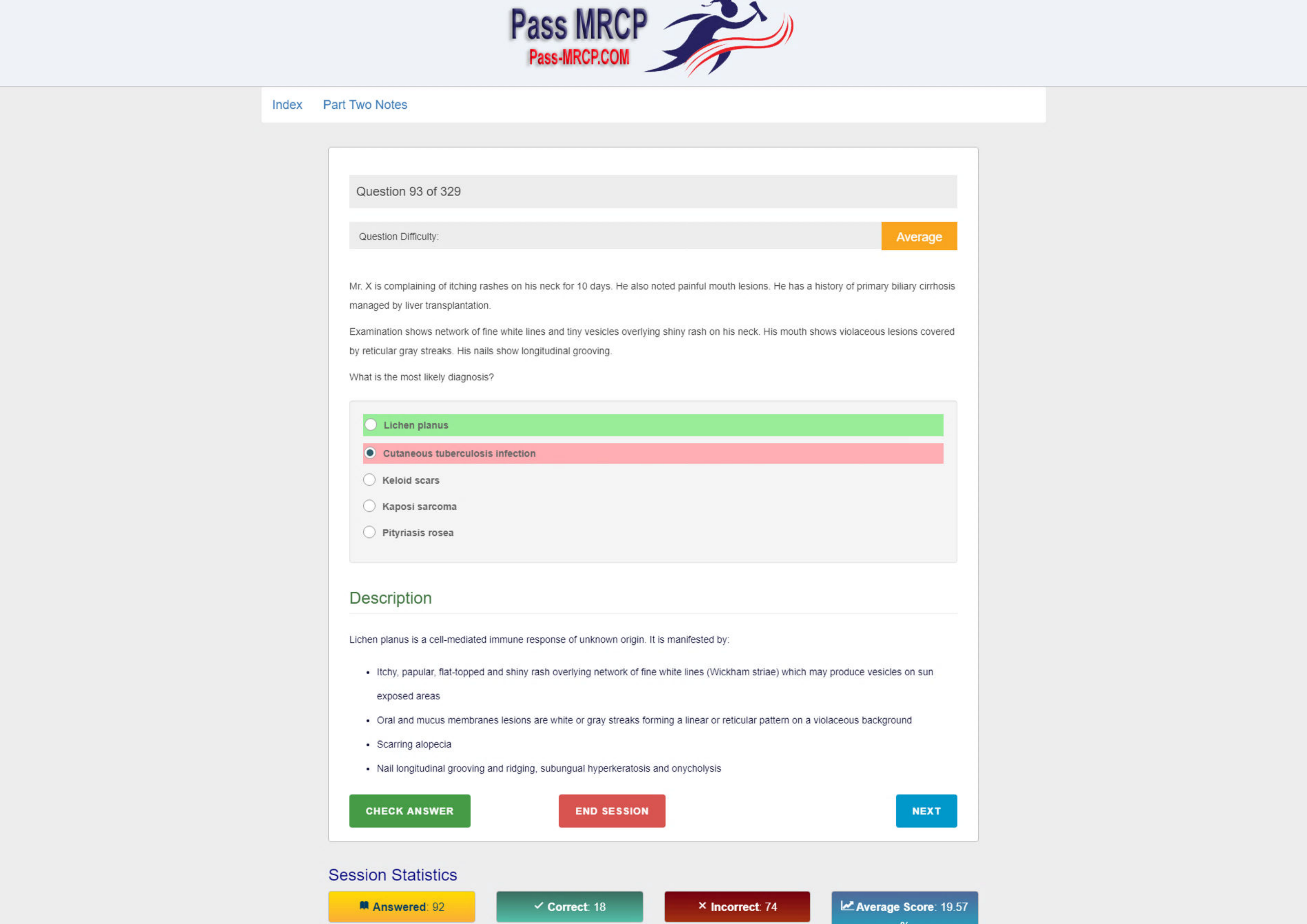
## Session Statistics

**Answered**: 91

✓ **Correct**: 18

✕ **Incorrect**: 73

**Average Score**: 19.78 %



Question 93 of 329

Question Difficulty: Average

Mr. X is complaining of itching rashes on his neck for 10 days. He also noted painful mouth lesions. He has a history of primary biliary cirrhosis managed by liver transplantation.

Examination shows network of fine white lines and tiny vesicles overlying shiny rash on his neck. His mouth shows violaceous lesions covered by reticular gray streaks. His nails show longitudinal grooving.

What is the most likely diagnosis?

○ **Lichen planus**

● **Cutaneous tuberculosis infection**

○ **Keloid scars**

○ **Kaposi sarcoma**

○ **Pityriasis rosea**

## Description

Lichen planus is a cell-mediated immune response of unknown origin. It is manifested by:

- Itchy, papular, flat-topped and shiny rash overlying network of fine white lines (Wickham striae) which may produce vesicles on sun exposed areas
- Oral and mucus membranes lesions are white or gray streaks forming a linear or reticular pattern on a violaceous background
- Scarring alopecia
- Nail longitudinal grooving and ridging, subungual hyperkeratosis and onycholysis

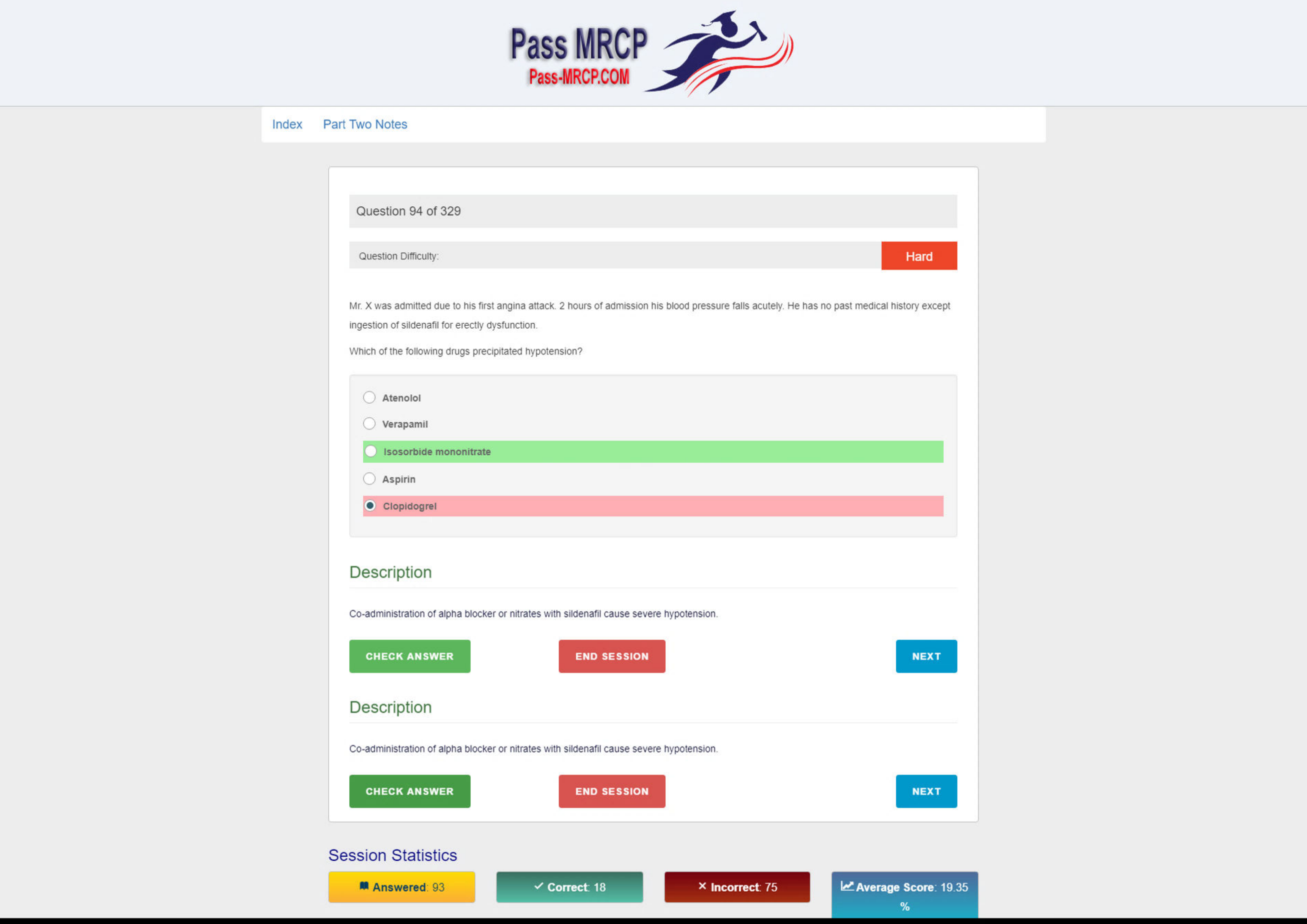
Session Statistics

Answered: 92

✓ Correct: 18

× Incorrect: 74

Average Score: 19.57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Question 94 of 329

Question Difficulty: Hard

Mr. X was admitted due to his first angina attack. 2 hours of admission his blood pressure falls acutely. He has no past medical history except ingestion of sildenafil for erectly dysfunction.

Which of the following drugs precipitated hypotension?

○ Atenolol
○ Verapamil
○ Isosorbide mononitrate
○ Aspirin
● Clopidogrel

## Description

Co-administration of alpha blocker or nitrates with sildenafil cause severe hypotension.

CHECK ANSWER
END SESSION
NEXT

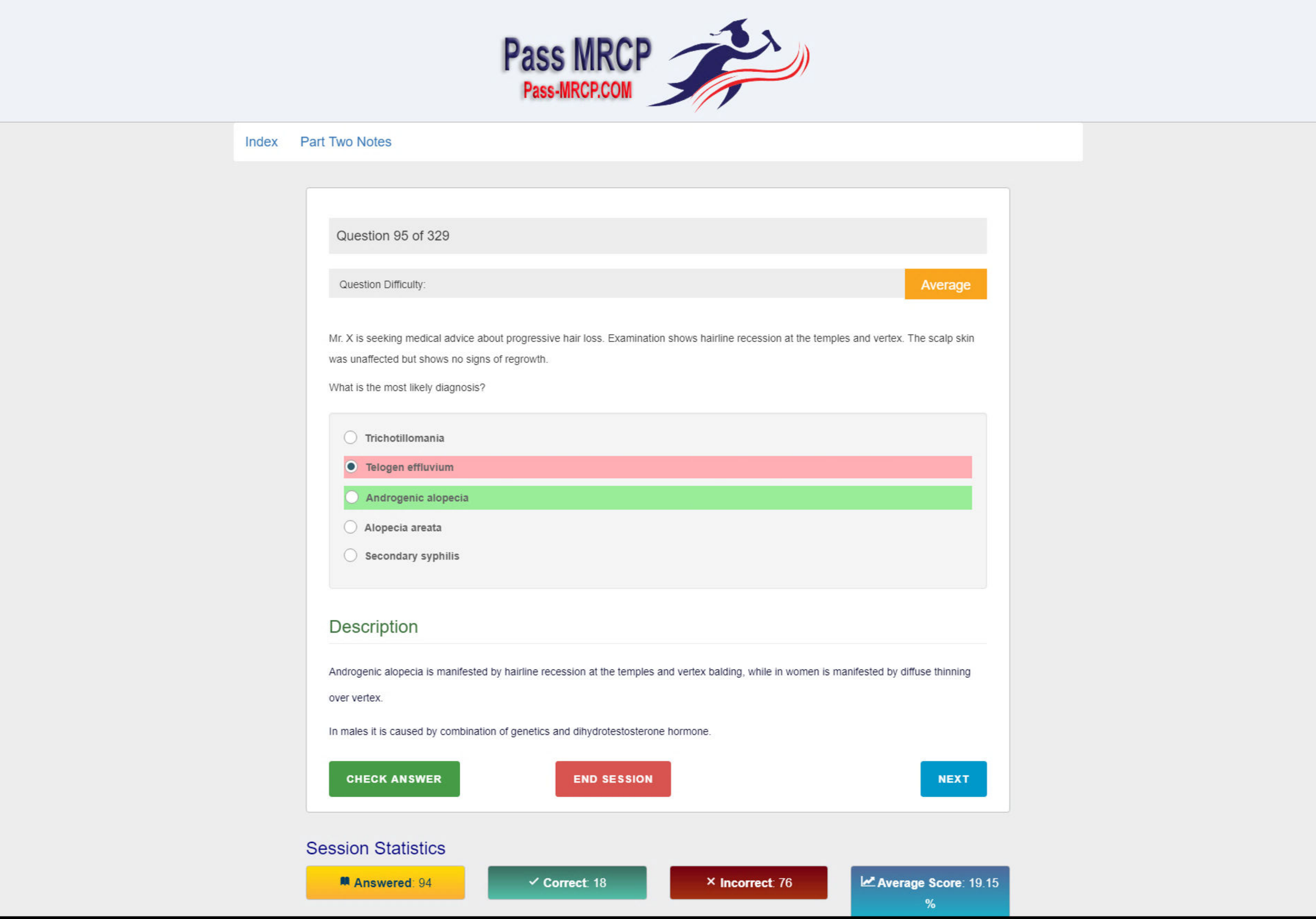
## Description

Co-administration of alpha blocker or nitrates with sildenafil cause severe hypotension.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

**Answered**: 93
✓ **Correct**: 18
✕ **Incorrect**: 75
**Average Score**: 19.35 %



Question 95 of 329

Question Difficulty: Average

Mr. X is seeking medical advice about progressive hair loss. Examination shows hairline recession at the temples and vertex. The scalp skin was unaffected but shows no signs of regrowth.

What is the most likely diagnosis?

- ○ Trichotillomania
- ● Telogen effluvium
- ○ Androgenic alopecia
- ○ Alopecia areata
- ○ Secondary syphilis

## Description

Androgenic alopecia is manifested by hairline recession at the temples and vertex balding, while in women is manifested by diffuse thinning over vertex.

In males it is caused by combination of genetics and dihydrotestosterone hormone.

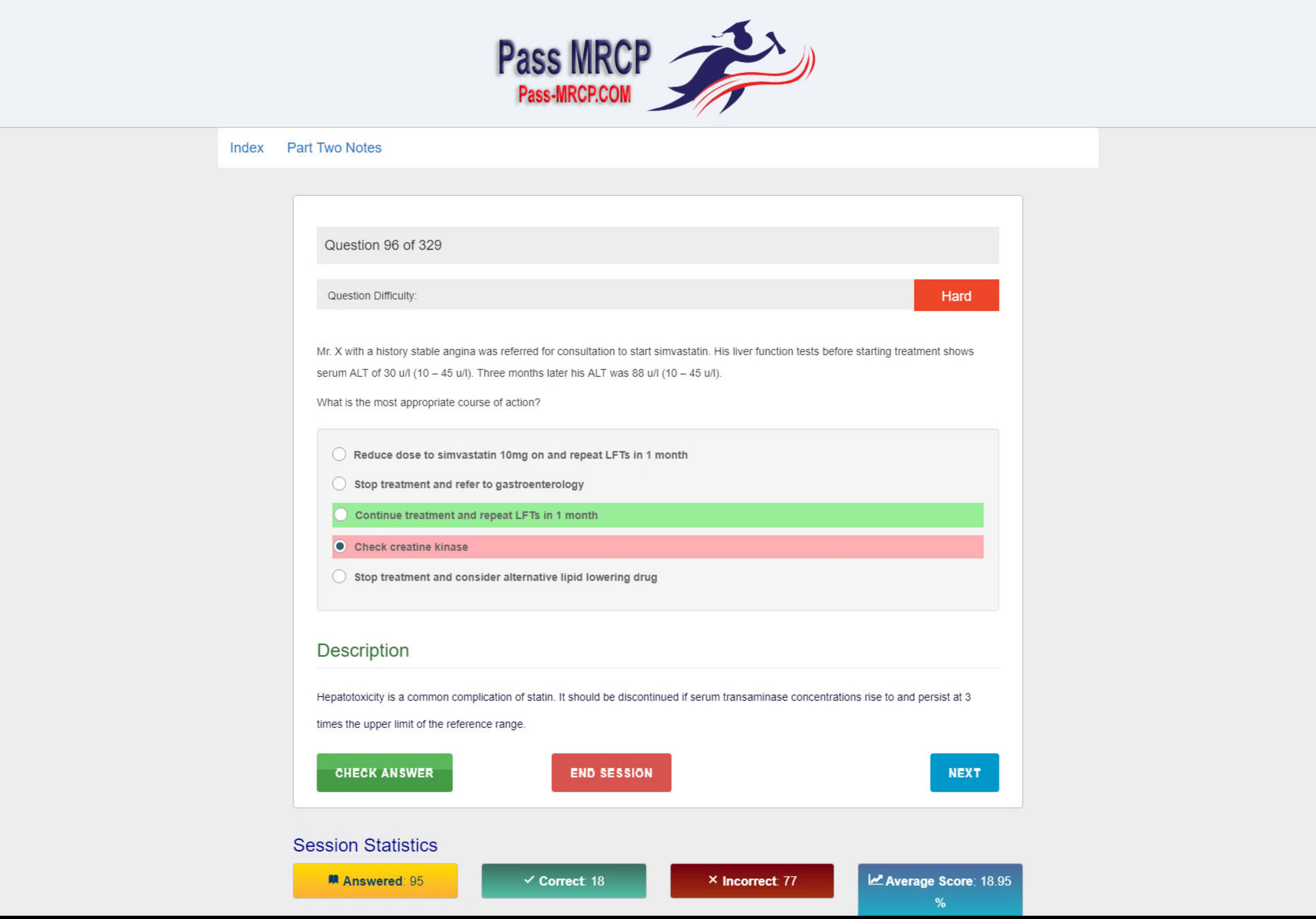
## Session Statistics

Answered: 94

✓ Correct: 18

✕ Incorrect: 76

Average Score: 19.15 %



Question 96 of 329

Question Difficulty: Hard

Mr. X with a history stable angina was referred for consultation to start simvastatin. His liver function tests before starting treatment shows serum ALT of 30 u/l (10 – 45 u/l). Three months later his ALT was 88 u/l (10 – 45 u/l).

What is the most appropriate course of action?

- ○ **Reduce dose to simvastatin 10mg on and repeat LFTs in 1 month**
- ○ **Stop treatment and refer to gastroenterology**
- ○ **Continue treatment and repeat LFTs in 1 month**
- ● **Check creatine kinase**
- ○ **Stop treatment and consider alternative lipid lowering drug**

## Description

Hepatotoxicity is a common complication of statin. It should be discontinued if serum transaminase concentrations rise to and persist at 3 times the upper limit of the reference range.

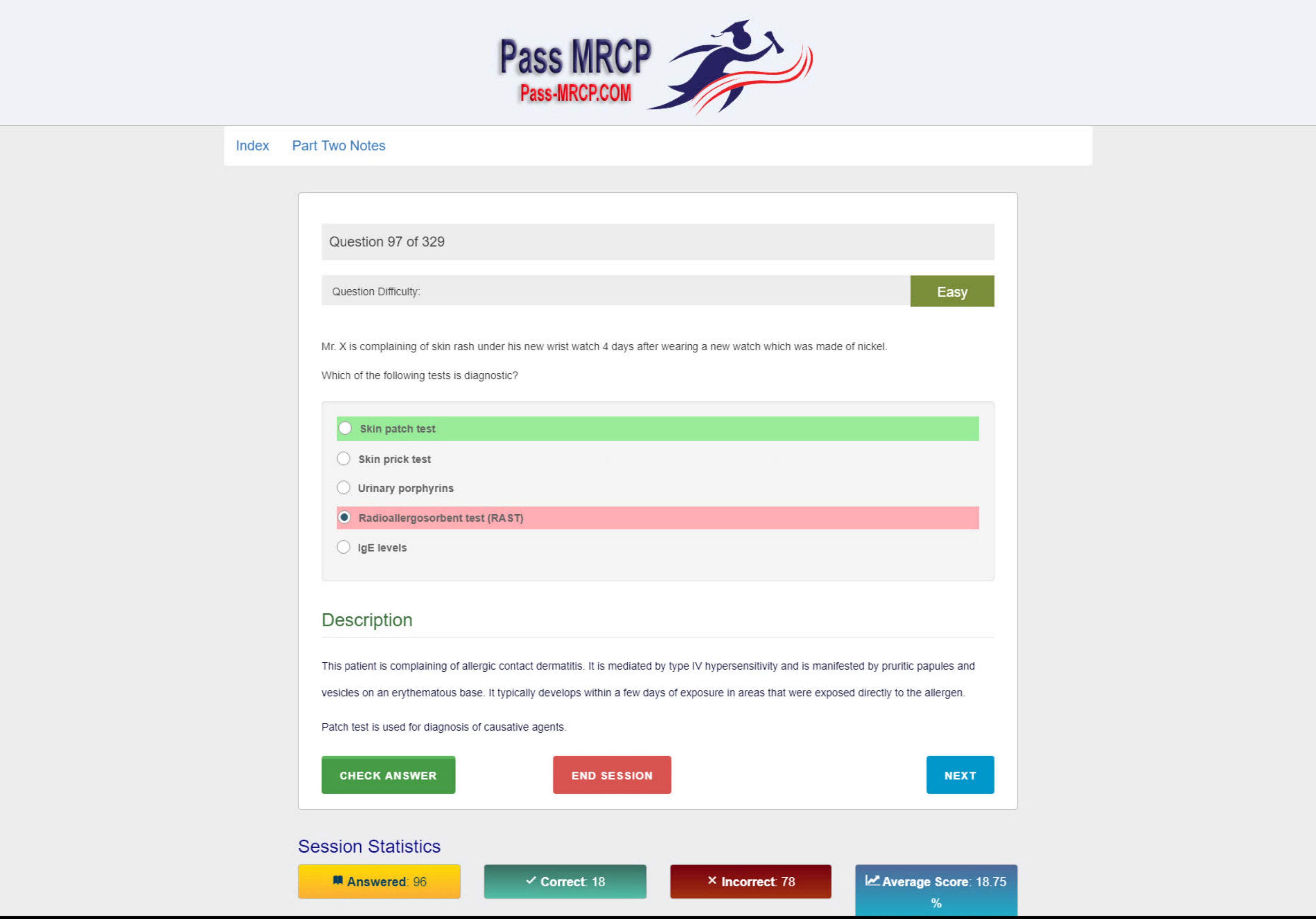
Session Statistics

**Answered**: 95

✓ **Correct**: 18

✕ **Incorrect**: 77

**Average Score**: 18.95 %



Question 97 of 329

Question Difficulty: **Easy**

Mr. X is complaining of skin rash under his new wrist watch 4 days after wearing a new watch which was made of nickel.

Which of the following tests is diagnostic?

- ○ **Skin patch test**
- ○ **Skin prick test**
- ○ **Urinary porphyrins**
- ● **Radioallergosorbent test (RAST)**
- ○ **IgE levels**

## Description

This patient is complaining of allergic contact dermatitis. It is mediated by type IV hypersensitivity and is manifested by pruritic papules and vesicles on an erythematous base. It typically develops within a few days of exposure in areas that were exposed directly to the allergen.

Patch test is used for diagnosis of causative agents.

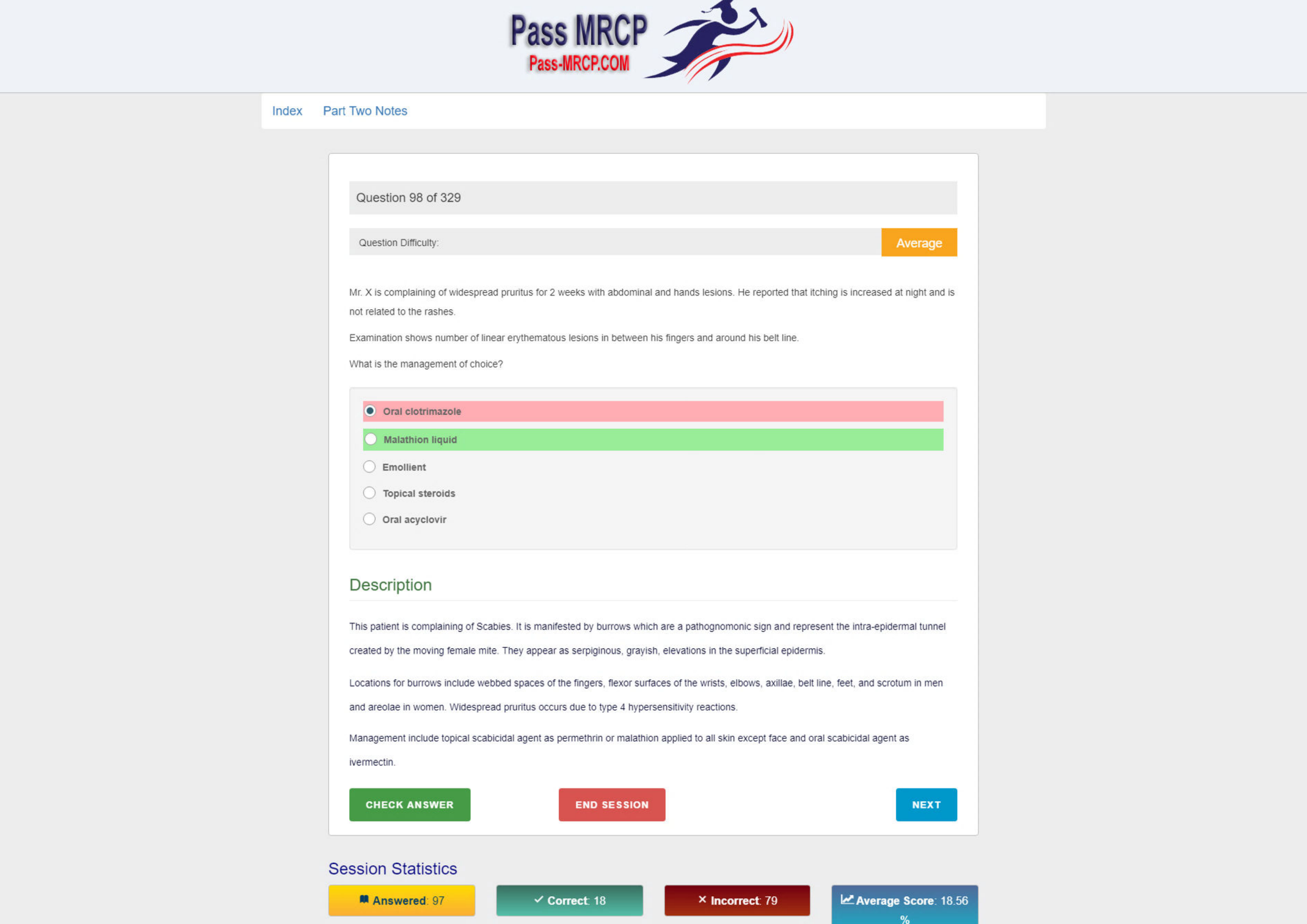
## Session Statistics

**Answered**: 96

✓ **Correct**: 18

✕ **Incorrect**: 78

**Average Score**: 18.75 %



Question 98 of 329

Question Difficulty: Average

Mr. X is complaining of widespread pruritus for 2 weeks with abdominal and hands lesions. He reported that itching is increased at night and is not related to the rashes.

Examination shows number of linear erythematous lesions in between his fingers and around his belt line.

What is the management of choice?

- ● Oral clotrimazole
- ○ Malathion liquid
- ○ Emollient
- ○ Topical steroids
- ○ Oral acyclovir

## Description

This patient is complaining of Scabies. It is manifested by burrows which are a pathognomonic sign and represent the intra-epidermal tunnel created by the moving female mite. They appear as serpiginous, grayish, elevations in the superficial epidermis.

Locations for burrows include webbed spaces of the fingers, flexor surfaces of the wrists, elbows, axillae, belt line, feet, and scrotum in men and areolae in women. Widespread pruritus occurs due to type 4 hypersensitivity reactions.

Management include topical scabicidal agent as permethrin or malathion applied to all skin except face and oral scabicidal agent as ivermectin.

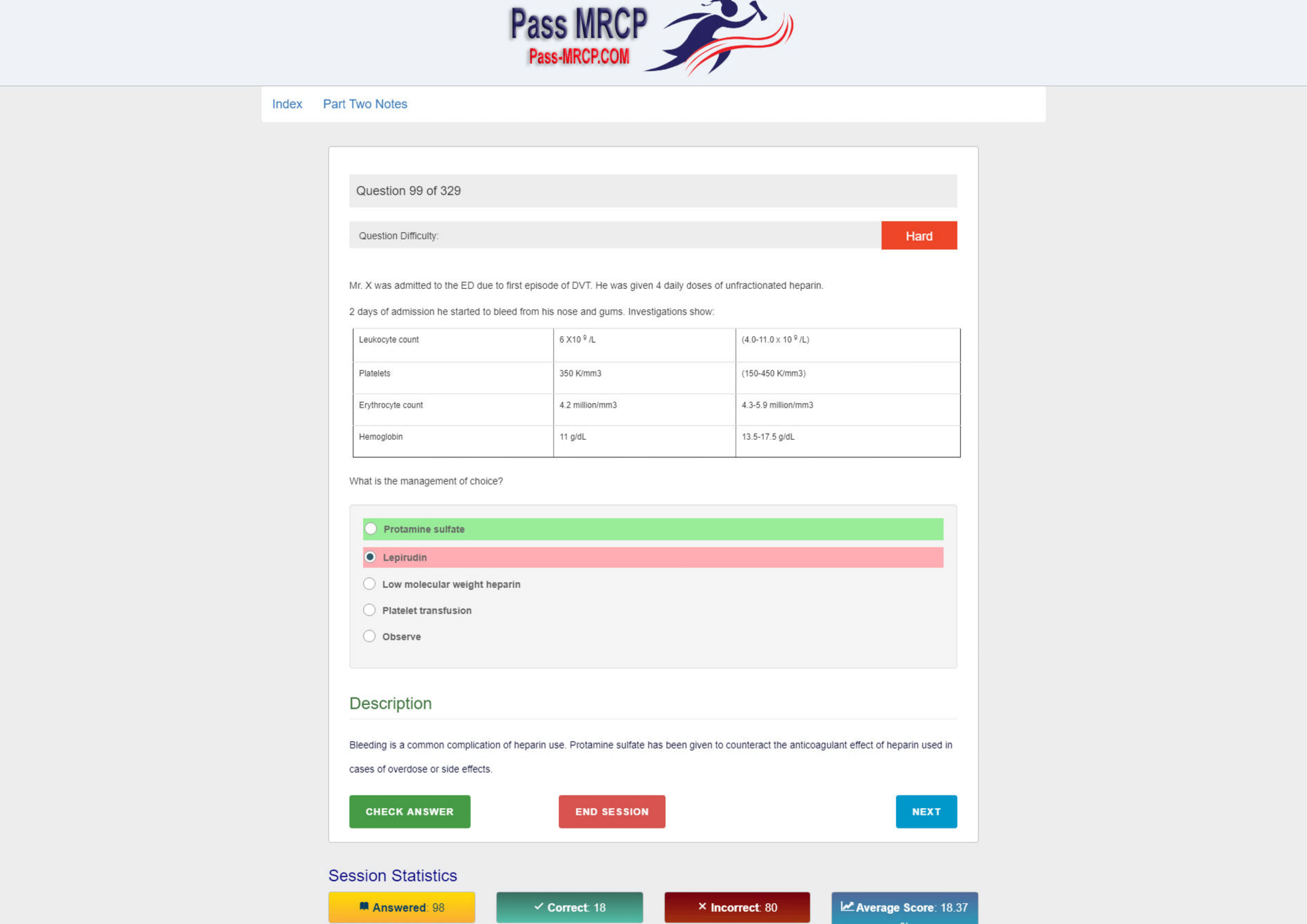
Session Statistics

Answered: 97

✓ Correct: 18

✕ Incorrect: 79

Average Score: 18.56 %



Question 99 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED due to first episode of DVT. He was given 4 daily doses of unfractionated heparin.

2 days of admission he started to bleed from his nose and gums. Investigations show:

| | | |
|---|---|---|
| Leukocyte count | 6 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 350 K/mm3 | (150-450 K/mm3) |
| Erythrocyte count | 4.2 million/mm3 | 4.3-5.9 million/mm3 |
| Hemoglobin | 11 g/dL | 13.5-17.5 g/dL |

What is the management of choice?

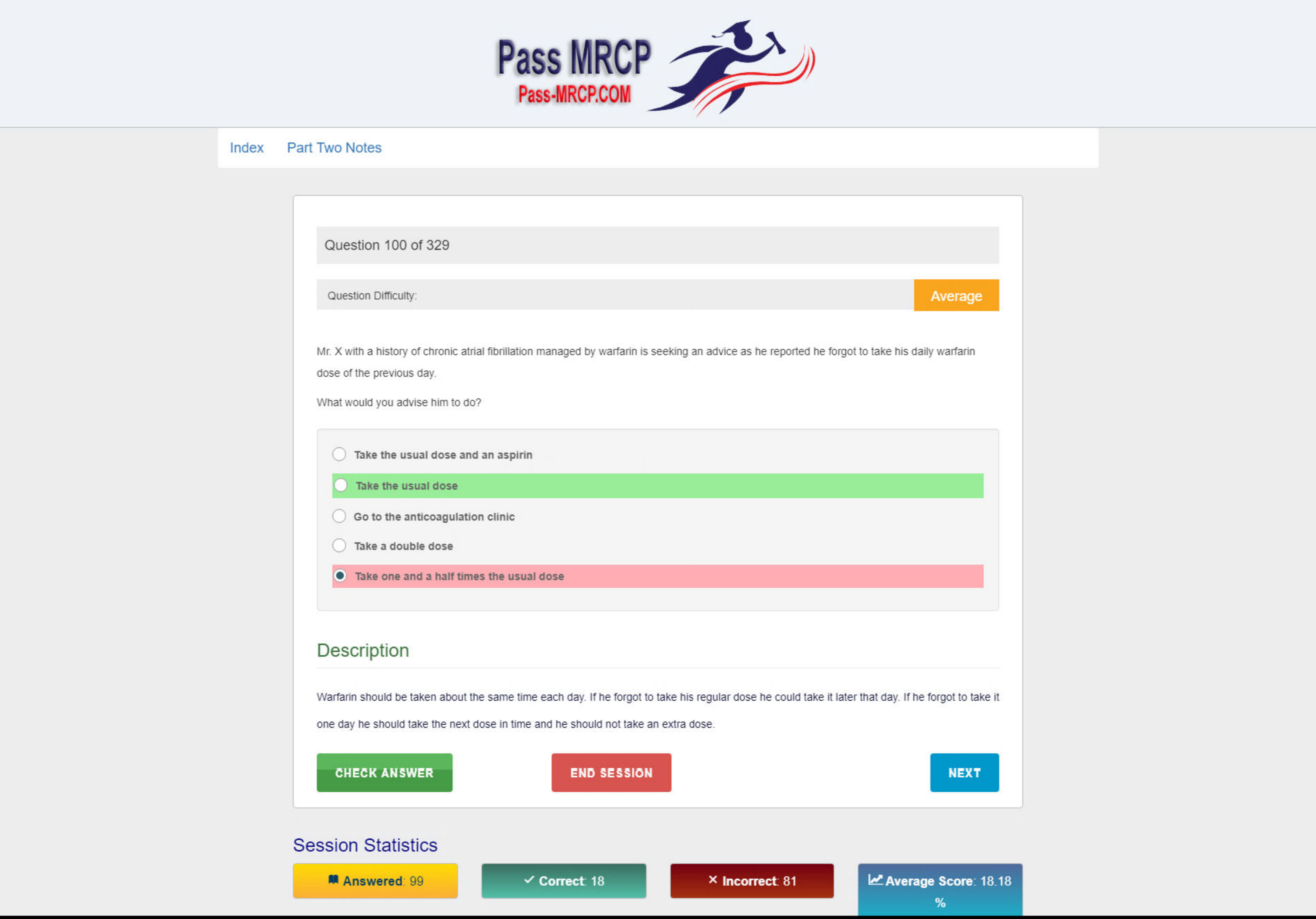
- ○ **Protamine sulfate**
- ● **Lepirudin**
- ○ **Low molecular weight heparin**
- ○ **Platelet transfusion**
- ○ **Observe**

## Description

Bleeding is a common complication of heparin use. Protamine sulfate has been given to counteract the anticoagulant effect of heparin used in cases of overdose or side effects.

Session Statistics

**Answered**: 98
**Correct**: 18
**Incorrect**: 80
**Average Score**: 18.37



Question 100 of 329

Question Difficulty: **Average**

Mr. X with a history of chronic atrial fibrillation managed by warfarin is seeking an advice as he reported he forgot to take his daily warfarin dose of the previous day.

What would you advise him to do?

- ○ **Take the usual dose and an aspirin**
- ○ **Take the usual dose**
- ○ **Go to the anticoagulation clinic**
- ○ **Take a double dose**
- ● **Take one and a half times the usual dose**

## Description

Warfarin should be taken about the same time each day. If he forgot to take his regular dose he could take it later that day. If he forgot to take it one day he should take the next dose in time and he should not take an extra dose.

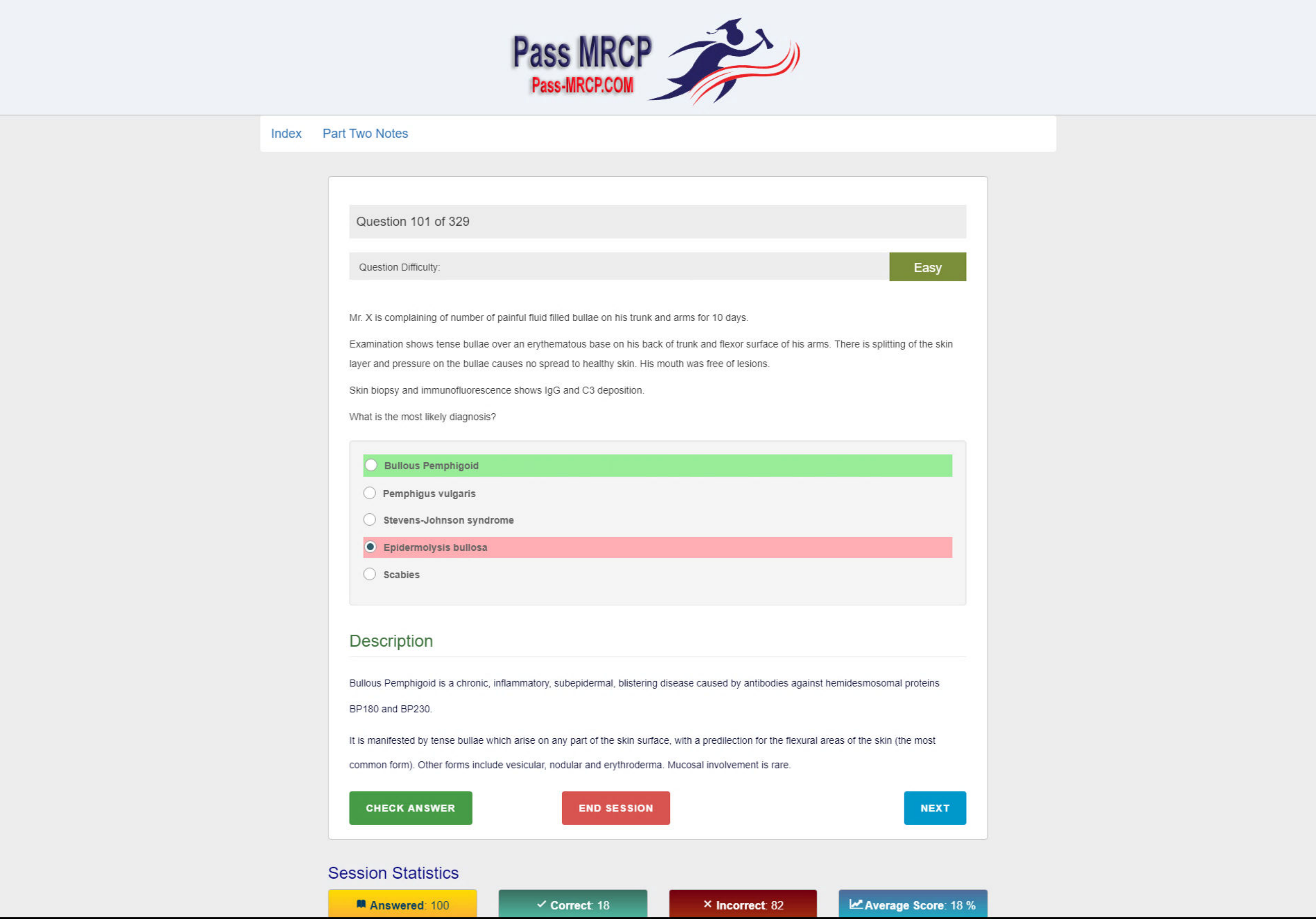
Session Statistics

**Answered**: 99

✓ **Correct**: 18

✕ **Incorrect**: 81

**Average Score**: 18.18 %



Question 101 of 329

Question Difficulty: Easy

Mr. X is complaining of number of painful fluid filled bullae on his trunk and arms for 10 days.

Examination shows tense bullae over an erythematous base on his back of trunk and flexor surface of his arms. There is splitting of the skin layer and pressure on the bullae causes no spread to healthy skin. His mouth was free of lesions.

Skin biopsy and immunofluorescence shows IgG and C3 deposition.

What is the most likely diagnosis?

- ○ **Bullous Pemphigoid**
- ○ **Pemphigus vulgaris**
- ○ **Stevens-Johnson syndrome**
- ● **Epidermolysis bullosa**
- ○ **Scabies**

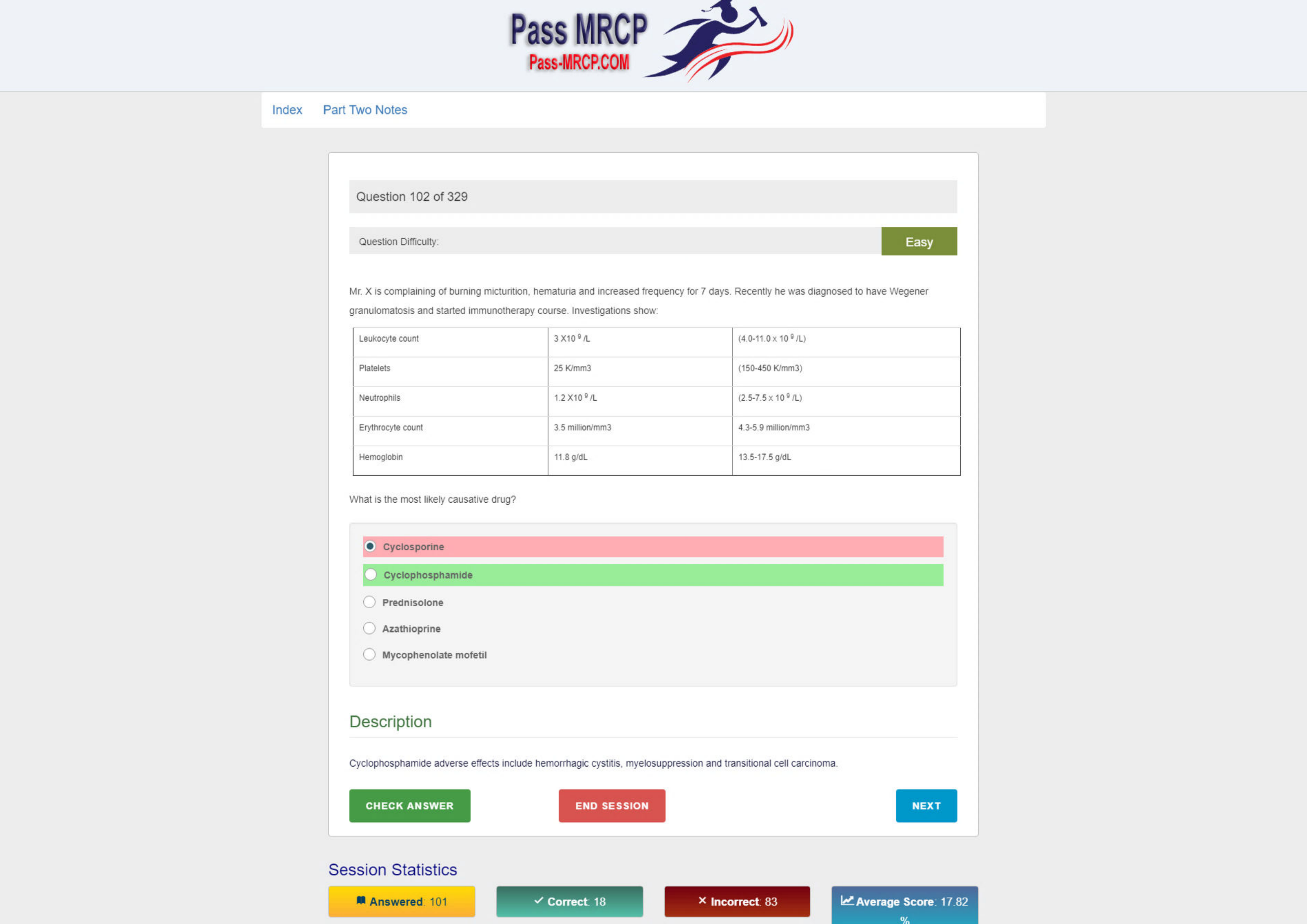
## Description

Bullous Pemphigoid is a chronic, inflammatory, subepidermal, blistering disease caused by antibodies against hemidesmosomal proteins BP180 and BP230.

It is manifested by tense bullae which arise on any part of the skin surface, with a predilection for the flexural areas of the skin (the most common form). Other forms include vesicular, nodular and erythroderma. Mucosal involvement is rare.

Session Statistics

**Answered**: 100
✓ **Correct**: 18
× **Incorrect**: 82
**Average Score**: 18 %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Question 102 of 329

Question Difficulty: Easy

Mr. X is complaining of burning micturition, hematuria and increased frequency for 7 days. Recently he was diagnosed to have Wegener granulomatosis and started immunotherapy course. Investigations show:

| | | |
|---|---|---|
| Leukocyte count | 3 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 25 K/mm3 | (150-450 K/mm3) |
| Neutrophils | 1.2 X10 $^{9}$ /L | (2.5-7.5 x 10 $^{9}$ /L) |
| Erythrocyte count | 3.5 million/mm3 | 4.3-5.9 million/mm3 |
| Hemoglobin | 11.8 g/dL | 13.5-17.5 g/dL |

What is the most likely causative drug?

- ● Cyclosporine
- ○ Cyclophosphamide
- ○ Prednisolone
- ○ Azathioprine
- ○ Mycophenolate mofetil

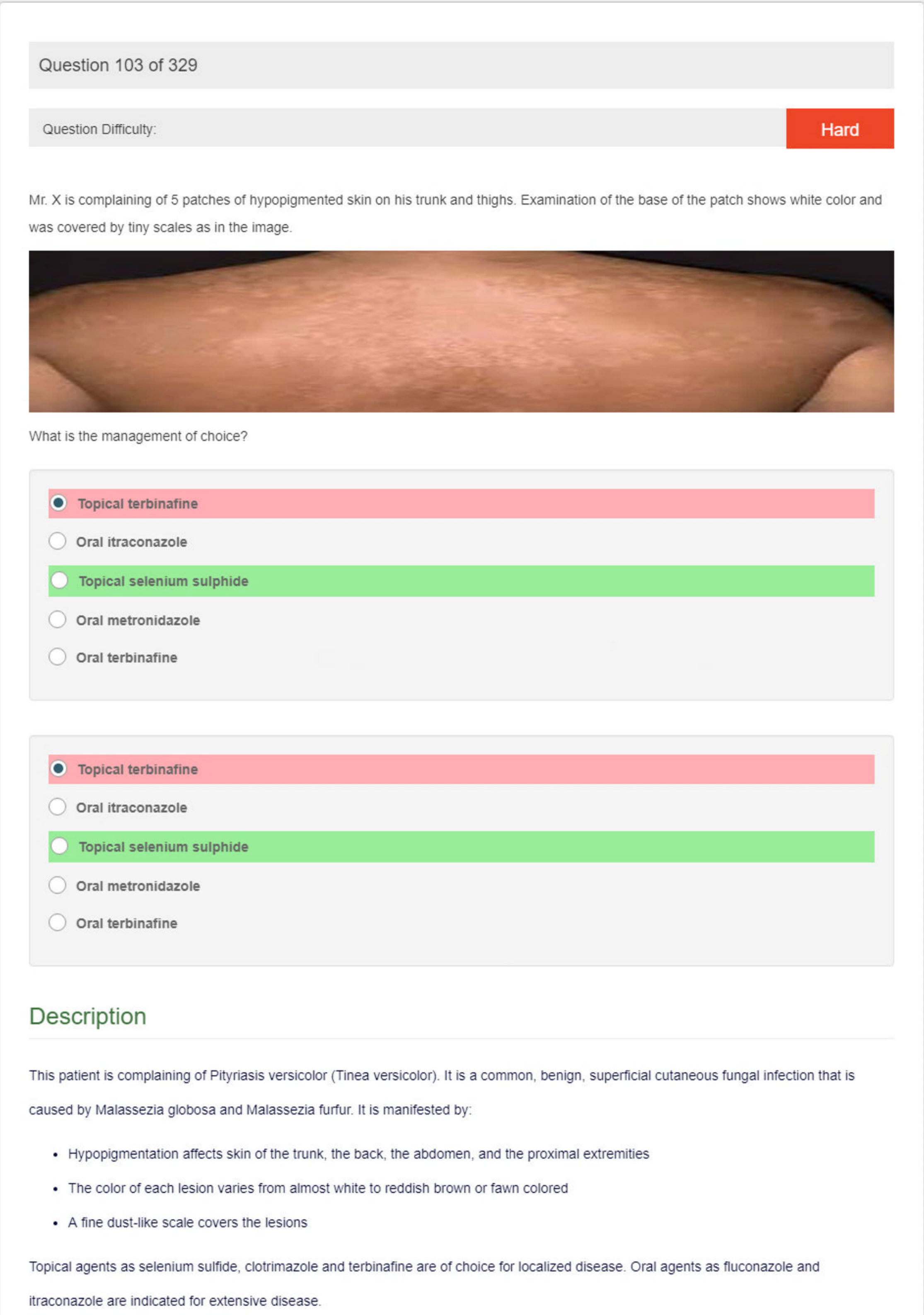
## Description

Cyclophosphamide adverse effects include hemorrhagic cystitis, myelosuppression and transitional cell carcinoma.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 101
✓ Correct: 18
✕ Incorrect: 83
Average Score: 17.82 %



Question 103 of 329

Question Difficulty: **Hard**

Mr. X is complaining of 5 patches of hypopigmented skin on his trunk and thighs. Examination of the base of the patch shows white color and was covered by tiny scales as in the image.

What is the management of choice?

● **Topical terbinafine**
○ **Oral itraconazole**
○ **Topical selenium sulphide**
○ **Oral metronidazole**
○ **Oral terbinafine**

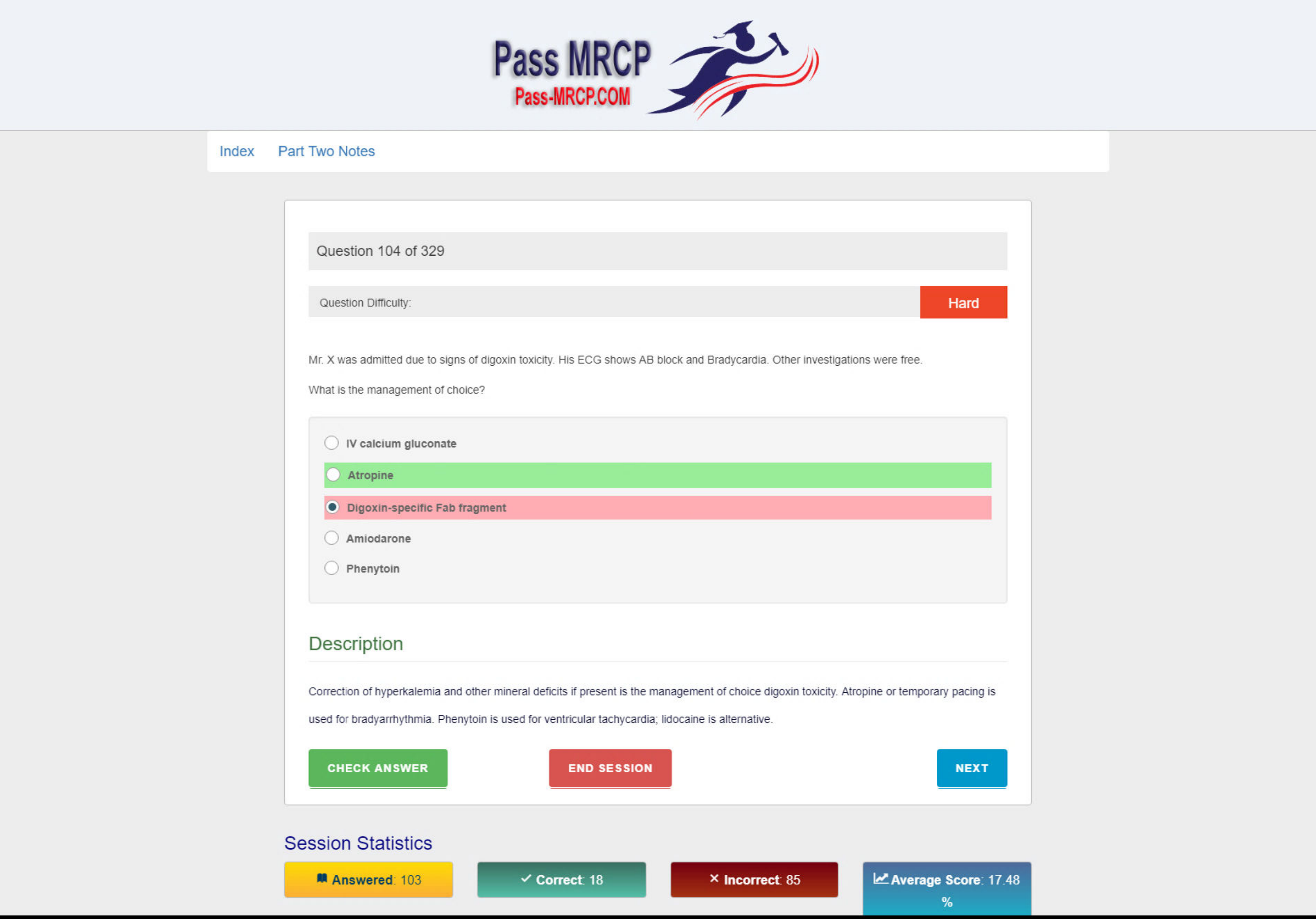
● **Topical terbinafine**
○ **Oral itraconazole**
○ **Topical selenium sulphide**
○ **Oral metronidazole**
○ **Oral terbinafine**

## Description

This patient is complaining of Pityriasis versicolor (Tinea versicolor). It is a common, benign, superficial cutaneous fungal infection that is caused by Malassezia globosa and Malassezia furfur. It is manifested by:

- Hypopigmentation affects skin of the trunk, the back, the abdomen, and the proximal extremities
- The color of each lesion varies from almost white to reddish brown or fawn colored
- A fine dust-like scale covers the lesions

Topical agents as selenium sulfide, clotrimazole and terbinafine are of choice for localized disease. Oral agents as fluconazole and itraconazole are indicated for extensive disease.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Question 104 of 329

Question Difficulty: Hard

Mr. X was admitted due to signs of digoxin toxicity. His ECG shows AB block and Bradycardia. Other investigations were free.

What is the management of choice?

○ IV calcium gluconate

○ Atropine

● Digoxin-specific Fab fragment

○ Amiodarone

○ Phenytoin

## Description

Correction of hyperkalemia and other mineral deficits if present is the management of choice digoxin toxicity. Atropine or temporary pacing is used for bradyarrhythmia. Phenytoin is used for ventricular tachycardia; lidocaine is alternative.

CHECK ANSWER
END SESSION
NEXT

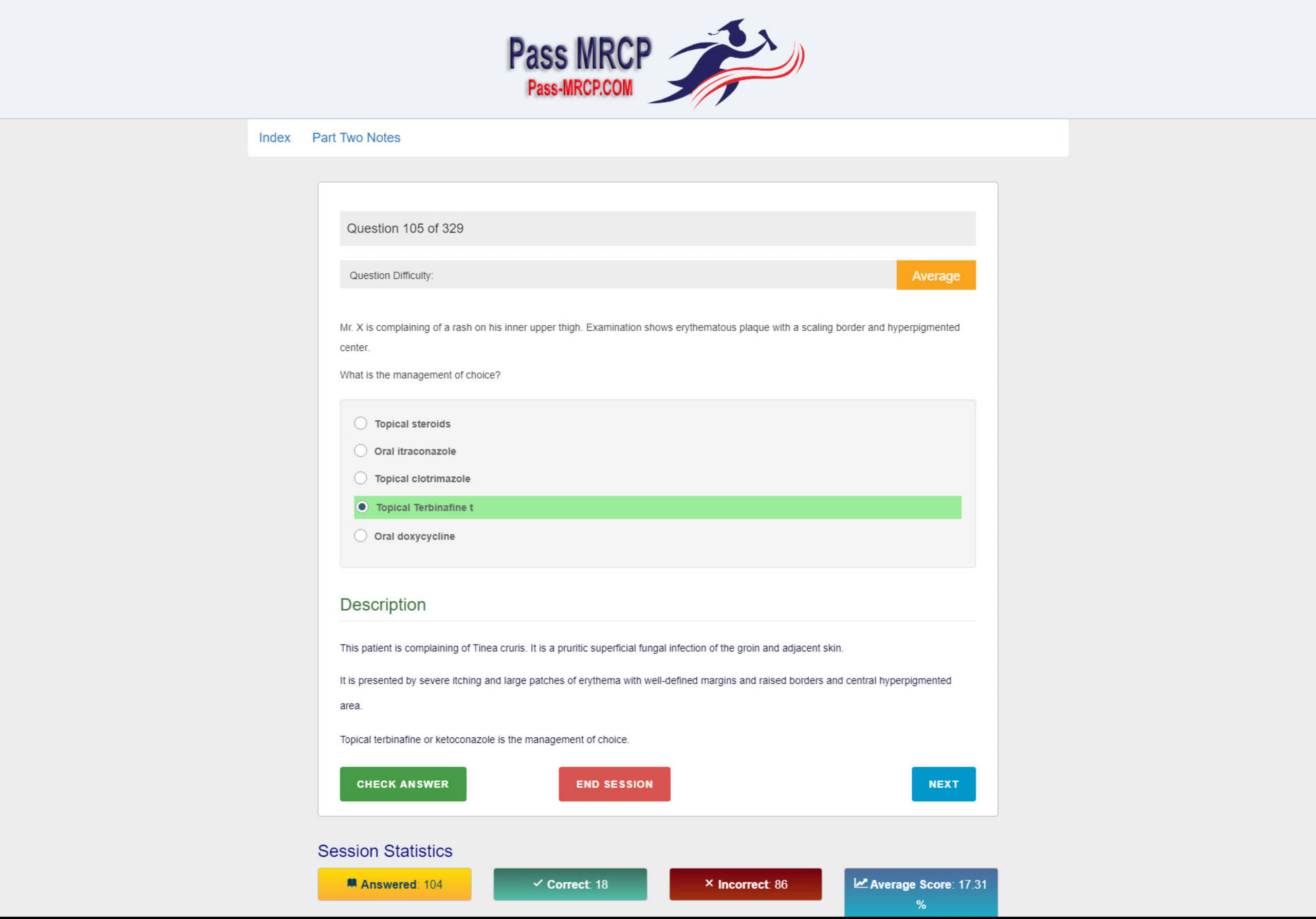
## Session Statistics

Answered: 103

✓ Correct: 18

✕ Incorrect: 85

Average Score: 17.48 %



Question 105 of 329

Question Difficulty: Average

Mr. X is complaining of a rash on his inner upper thigh. Examination shows erythematous plaque with a scaling border and hyperpigmented center.

What is the management of choice?

- ○ **Topical steroids**
- ○ **Oral itraconazole**
- ○ **Topical clotrimazole**
- ● **Topical Terbinafine t**
- ○ **Oral doxycycline**

## Description

This patient is complaining of Tinea cruris. It is a pruritic superficial fungal infection of the groin and adjacent skin.

It is presented by severe itching and large patches of erythema with well-defined margins and raised borders and central hyperpigmented area.

Topical terbinafine or ketoconazole is the management of choice.

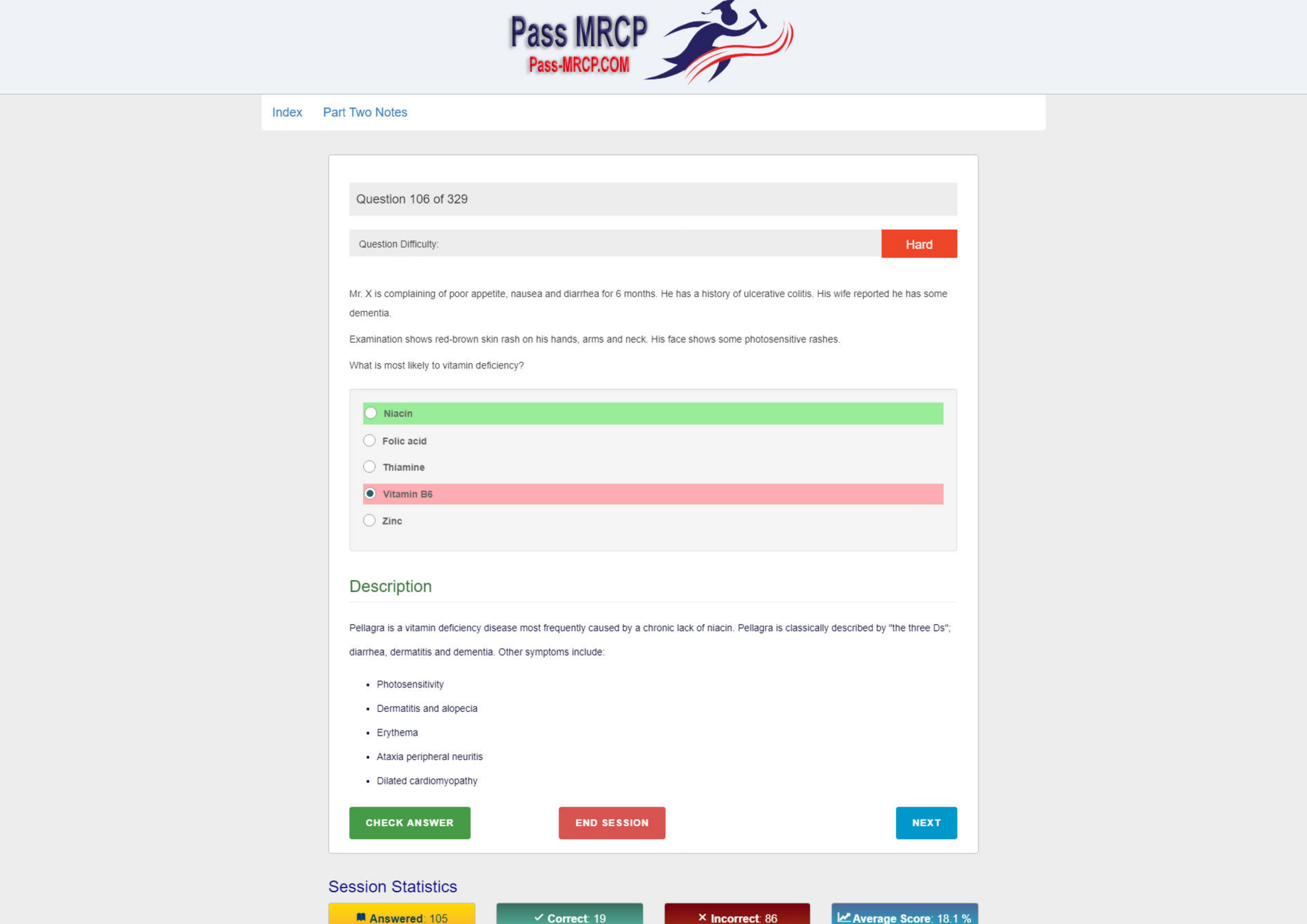
## Session Statistics

**Answered**: 104

✓ **Correct**: 18

✕ **Incorrect**: 86

**Average Score**: 17.31 %



Question 106 of 329

Question Difficulty: Hard

Mr. X is complaining of poor appetite, nausea and diarrhea for 6 months. He has a history of ulcerative colitis. His wife reported he has some dementia.

Examination shows red-brown skin rash on his hands, arms and neck. His face shows some photosensitive rashes.

What is most likely to vitamin deficiency?

- ○ **Niacin**
- ○ **Folic acid**
- ○ **Thiamine**
- ● **Vitamin B6**
- ○ **Zinc**

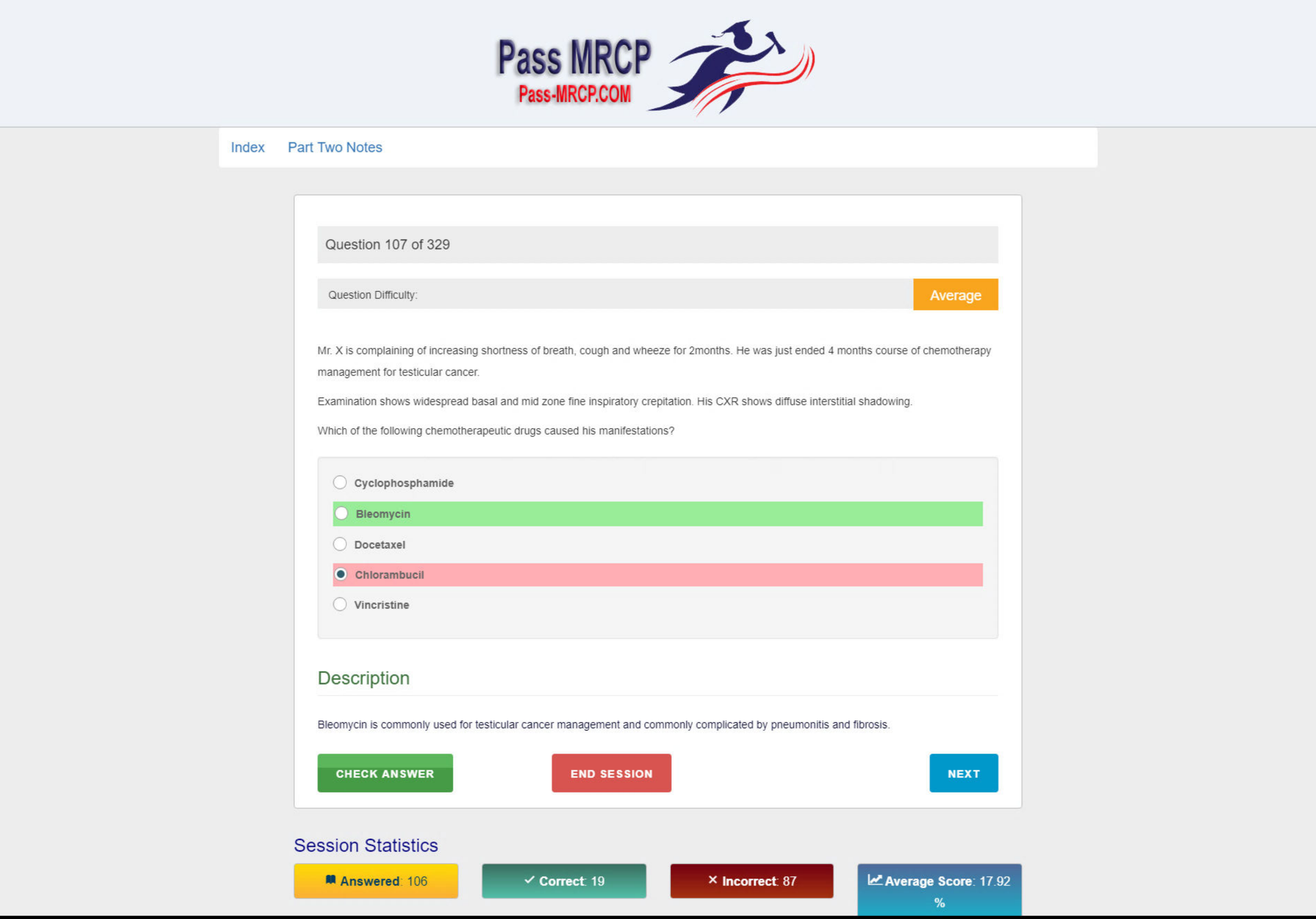
## Description

Pellagra is a vitamin deficiency disease most frequently caused by a chronic lack of niacin. Pellagra is classically described by "the three Ds"; diarrhea, dermatitis and dementia. Other symptoms include:

- Photosensitivity
- Dermatitis and alopecia
- Erythema
- Ataxia peripheral neuritis
- Dilated cardiomyopathy

## Session Statistics

**Answered**: 105
**Correct**: 19
**Incorrect**: 86
**Average Score**: 18.1 %



Question 107 of 329

Question Difficulty: Average

Mr. X is complaining of increasing shortness of breath, cough and wheeze for 2months. He was just ended 4 months course of chemotherapy management for testicular cancer.

Examination shows widespread basal and mid zone fine inspiratory crepitation. His CXR shows diffuse interstitial shadowing.

Which of the following chemotherapeutic drugs caused his manifestations?

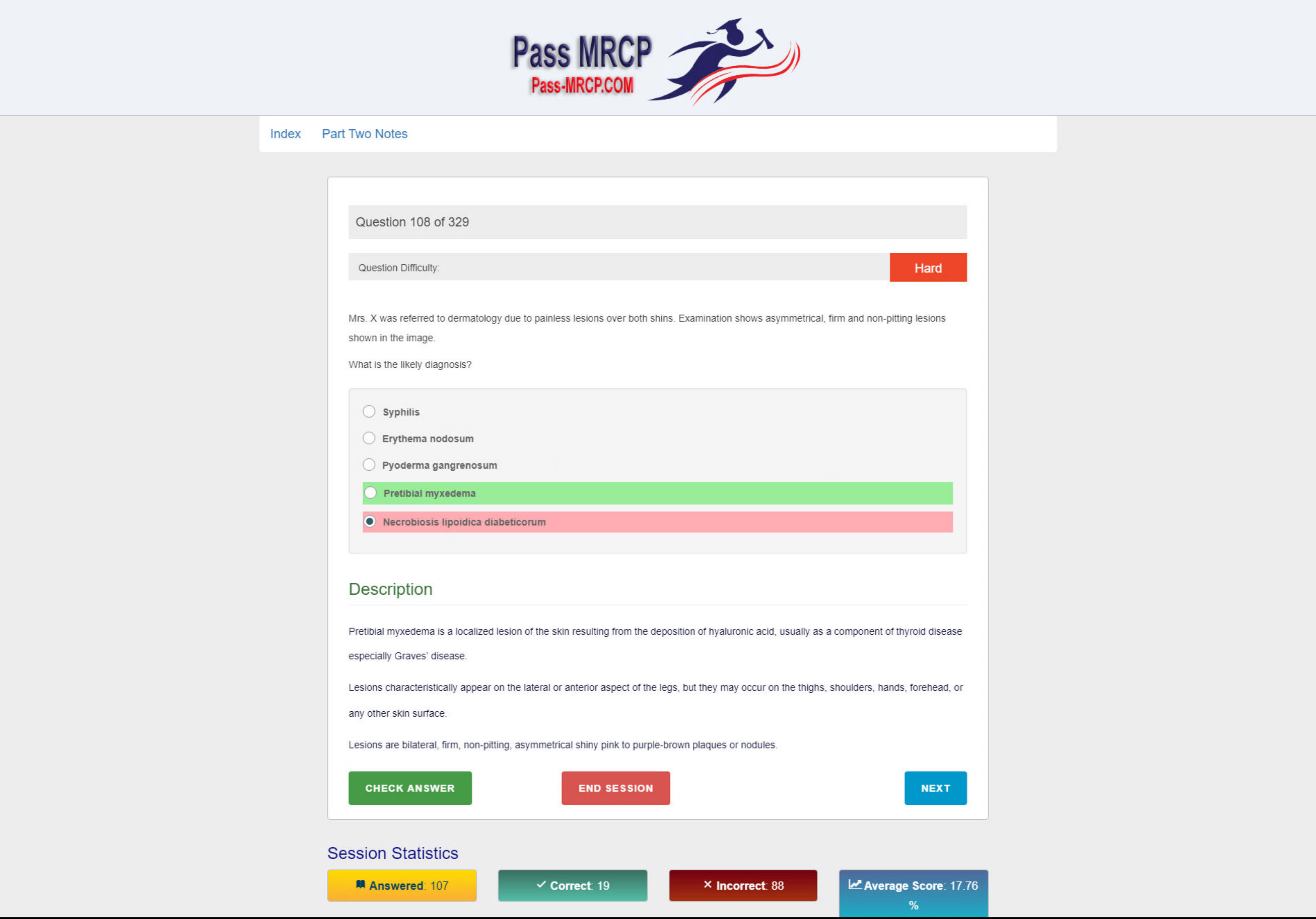
- ○ Cyclophosphamide
- ○ Bleomycin
- ○ Docetaxel
- ● Chlorambucil
- ○ Vincristine

## Description

Bleomycin is commonly used for testicular cancer management and commonly complicated by pneumonitis and fibrosis.

## Session Statistics

Answered: 106
Correct: 19
Incorrect: 87
Average Score: 17.92 %



Question 108 of 329

Question Difficulty: Hard

Mrs. X was referred to dermatology due to painless lesions over both shins. Examination shows asymmetrical, firm and non-pitting lesions shown in the image.

What is the likely diagnosis?

○ Syphilis
○ Erythema nodosum
○ Pyoderma gangrenosum
○ Pretibial myxedema
● Necrobiosis lipoidica diabeticorum

## Description

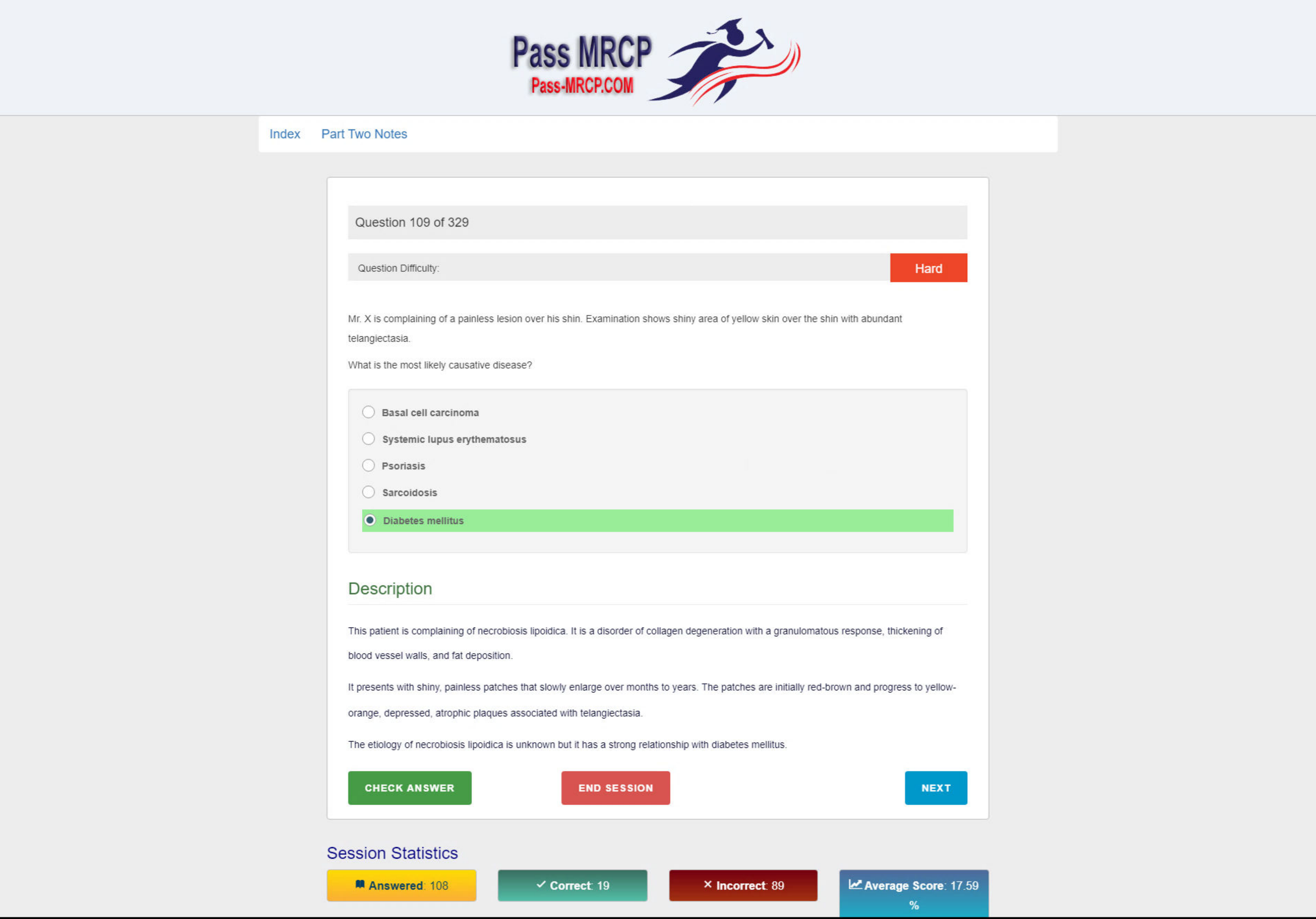
Pretibial myxedema is a localized lesion of the skin resulting from the deposition of hyaluronic acid, usually as a component of thyroid disease especially Graves' disease.

Lesions characteristically appear on the lateral or anterior aspect of the legs, but they may occur on the thighs, shoulders, hands, forehead, or any other skin surface.

Lesions are bilateral, firm, non-pitting, asymmetrical shiny pink to purple-brown plaques or nodules.

Session Statistics

Answered: 107
✓ Correct: 19
✕ Incorrect: 88
Average Score: 17.76 %



Question 109 of 329

Question Difficulty: Hard

Mr. X is complaining of a painless lesion over his shin. Examination shows shiny area of yellow skin over the shin with abundant telangiectasia.

What is the most likely causative disease?

- ○ Basal cell carcinoma
- ○ Systemic lupus erythematosus
- ○ Psoriasis
- ○ Sarcoidosis
- ● Diabetes mellitus

## Description

This patient is complaining of necrobiosis lipoidica. It is a disorder of collagen degeneration with a granulomatous response, thickening of blood vessel walls, and fat deposition.

It presents with shiny, painless patches that slowly enlarge over months to years. The patches are initially red-brown and progress to yellow-orange, depressed, atrophic plaques associated with telangiectasia.

The etiology of necrobiosis lipoidica is unknown but it has a strong relationship with diabetes mellitus.

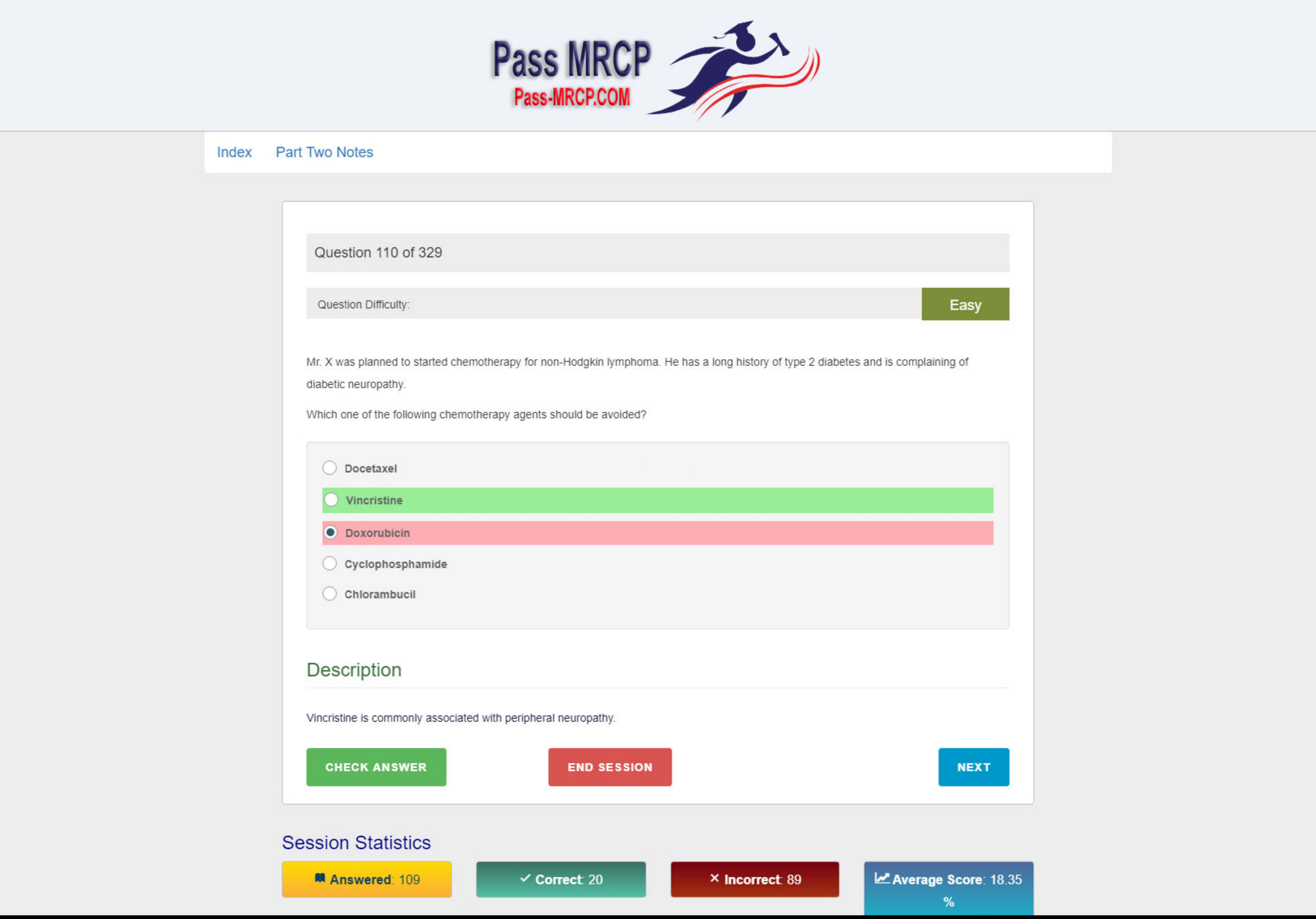
Session Statistics

Answered: 108

✓ Correct: 19

✕ Incorrect: 89

Average Score: 17.59 %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Question 110 of 329

Question Difficulty: Easy

Mr. X was planned to started chemotherapy for non-Hodgkin lymphoma. He has a long history of type 2 diabetes and is complaining of diabetic neuropathy.

Which one of the following chemotherapy agents should be avoided?

○ Docetaxel
○ Vincristine
● Doxorubicin
○ Cyclophosphamide
○ Chlorambucil

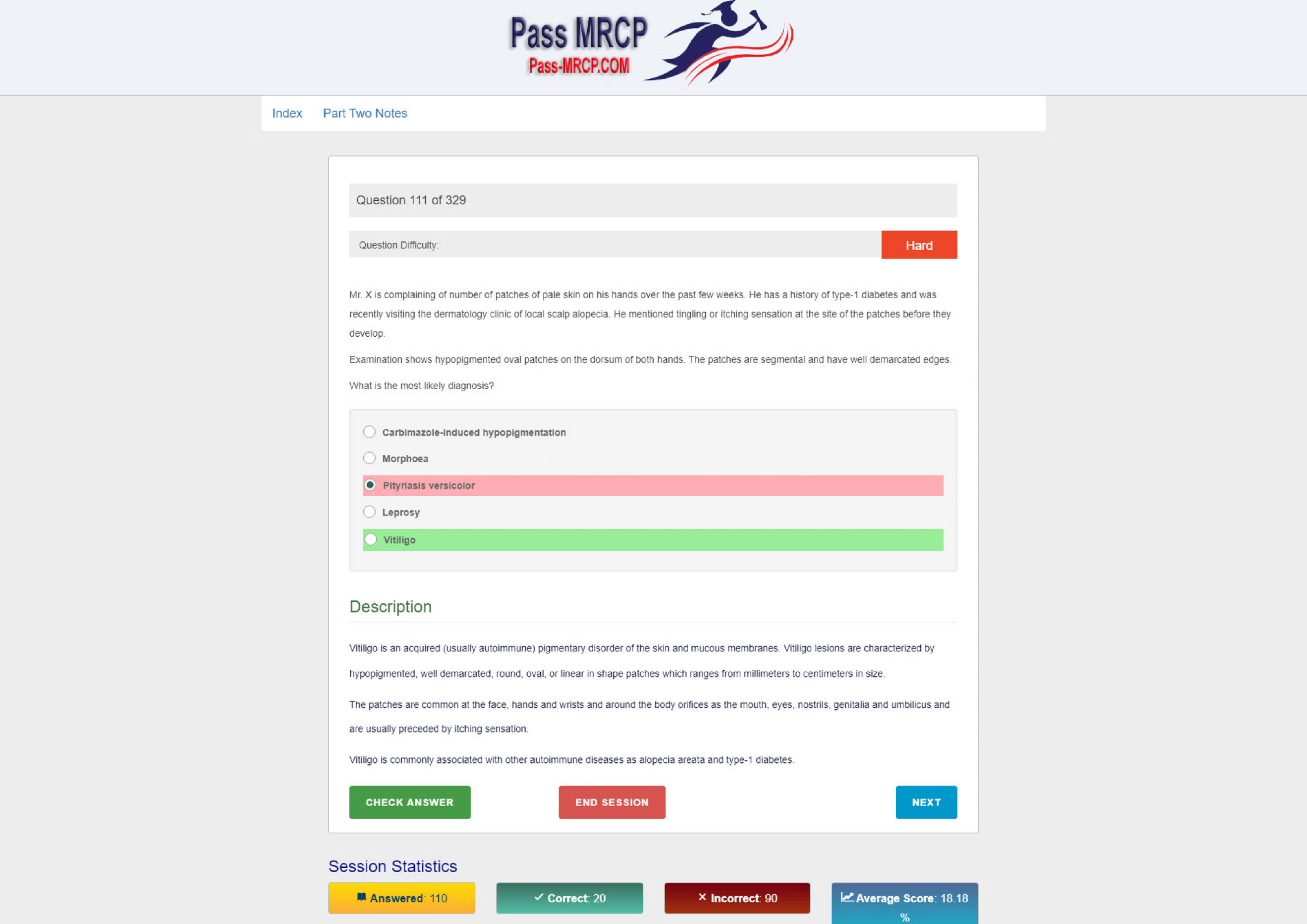
## Description

Vincristine is commonly associated with peripheral neuropathy.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 109
✓ Correct: 20
× Incorrect: 89
Average Score: 18.35 %



Question 111 of 329

Question Difficulty: **Hard**

Mr. X is complaining of number of patches of pale skin on his hands over the past few weeks. He has a history of type-1 diabetes and was recently visiting the dermatology clinic of local scalp alopecia. He mentioned tingling or itching sensation at the site of the patches before they develop.

Examination shows hypopigmented oval patches on the dorsum of both hands. The patches are segmental and have well demarcated edges.

What is the most likely diagnosis?

- ○ **Carbimazole-induced hypopigmentation**
- ○ **Morphoea**
- ● **Pityriasis versicolor**
- ○ **Leprosy**
- ○ **Vitiligo**

## Description

Vitiligo is an acquired (usually autoimmune) pigmentary disorder of the skin and mucous membranes. Vitiligo lesions are characterized by hypopigmented, well demarcated, round, oval, or linear in shape patches which ranges from millimeters to centimeters in size.

The patches are common at the face, hands and wrists and around the body orifices as the mouth, eyes, nostrils, genitalia and umbilicus and are usually preceded by itching sensation.

Vitiligo is commonly associated with other autoimmune diseases as alopecia areata and type-1 diabetes.

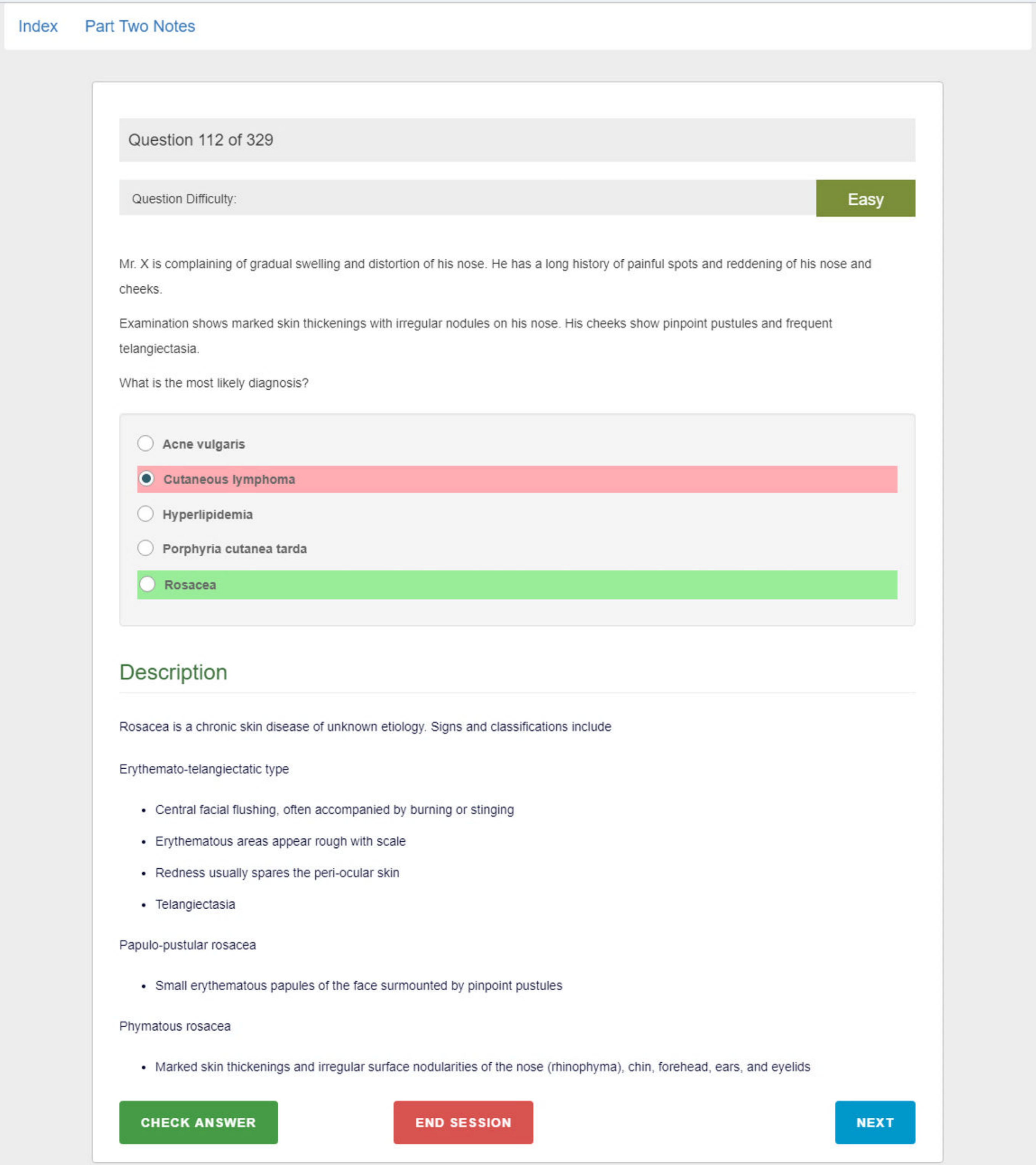
## Session Statistics

**Answered**: 110

✓ **Correct**: 20

× **Incorrect**: 90

**Average Score**: 18.18 %



Question 112 of 329

Question Difficulty: Easy

Mr. X is complaining of gradual swelling and distortion of his nose. He has a long history of painful spots and reddening of his nose and cheeks.

Examination shows marked skin thickenings with irregular nodules on his nose. His cheeks show pinpoint pustules and frequent telangiectasia.

What is the most likely diagnosis?

○ **Acne vulgaris**
● **Cutaneous lymphoma**
○ **Hyperlipidemia**
○ **Porphyria cutanea tarda**
○ **Rosacea**

## Description

Rosacea is a chronic skin disease of unknown etiology. Signs and classifications include

Erythemato-telangiectatic type

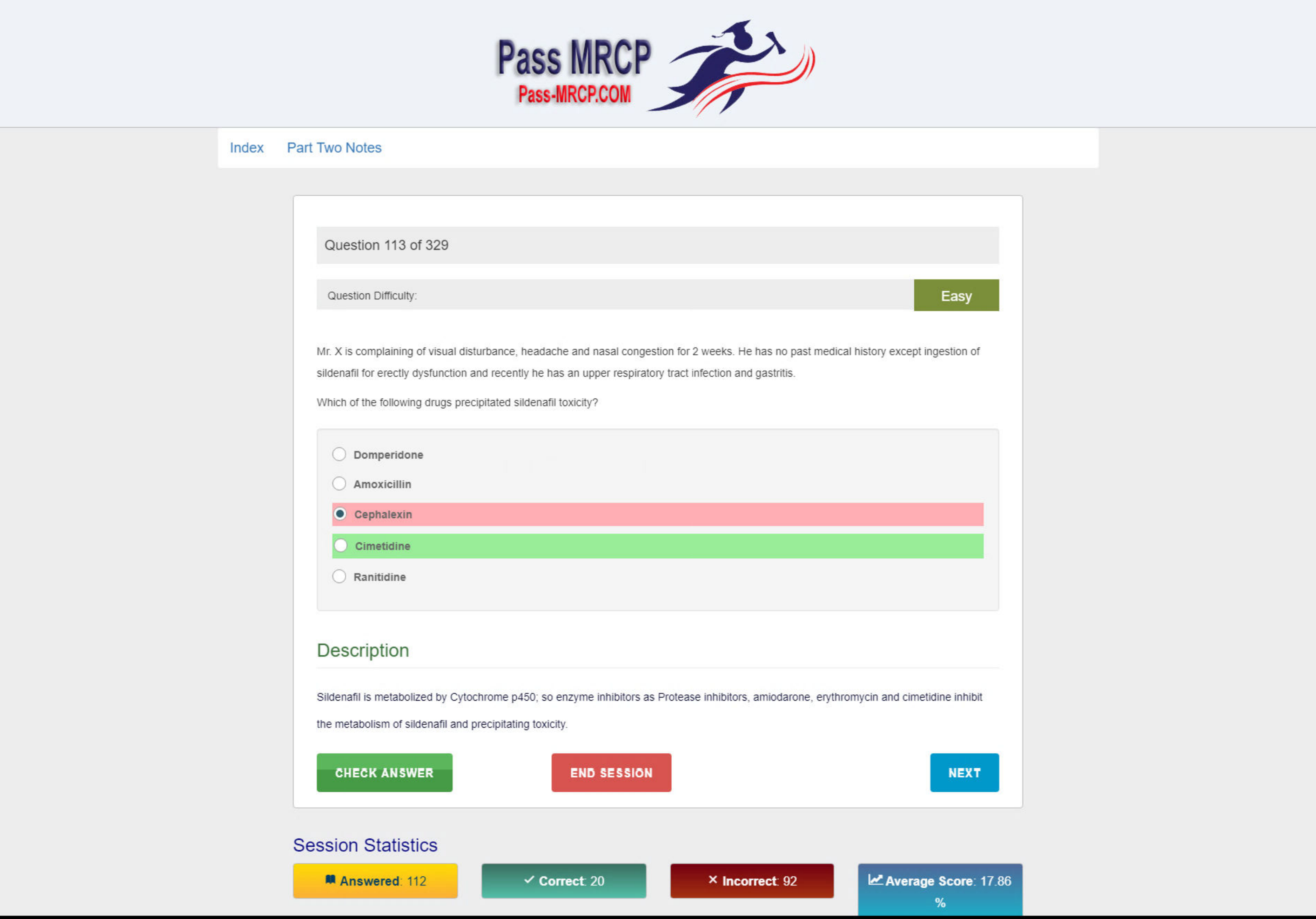
- Central facial flushing, often accompanied by burning or stinging
- Erythematous areas appear rough with scale
- Redness usually spares the peri-ocular skin
- Telangiectasia

Papulo-pustular rosacea

- Small erythematous papules of the face surmounted by pinpoint pustules

Phymatous rosacea

- Marked skin thickenings and irregular surface nodularities of the nose (rhinophyma), chin, forehead, ears, and eyelids



Question 113 of 329

Question Difficulty: Easy

Mr. X is complaining of visual disturbance, headache and nasal congestion for 2 weeks. He has no past medical history except ingestion of sildenafil for erectly dysfunction and recently he has an upper respiratory tract infection and gastritis.

Which of the following drugs precipitated sildenafil toxicity?

- ○ **Domperidone**
- ○ **Amoxicillin**
- ● **Cephalexin**
- ○ **Cimetidine**
- ○ **Ranitidine**

## Description

Sildenafil is metabolized by Cytochrome p450; so enzyme inhibitors as Protease inhibitors, amiodarone, erythromycin and cimetidine inhibit the metabolism of sildenafil and precipitating toxicity.

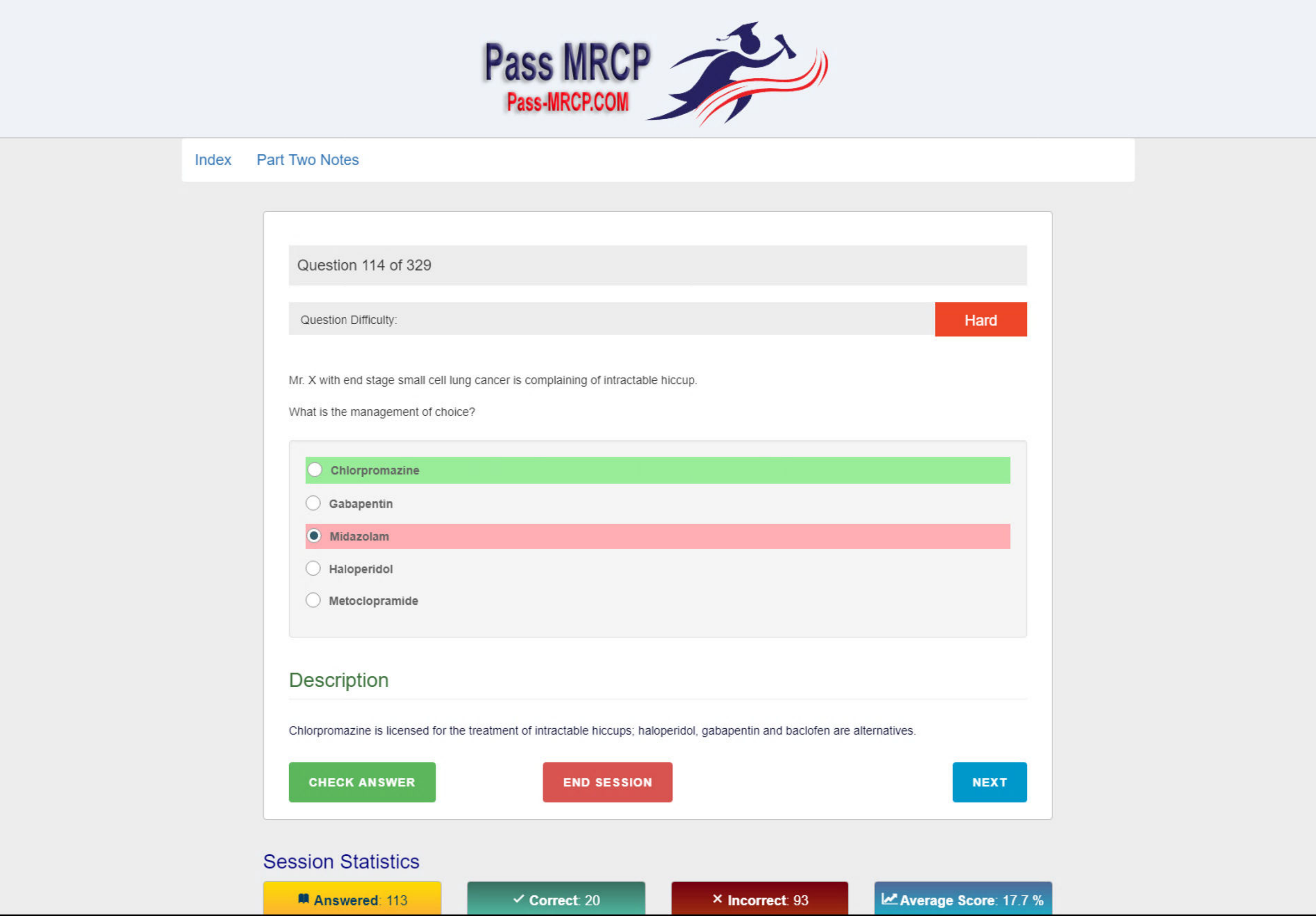
Session Statistics

**Answered**: 112

✓ **Correct**: 20

✕ **Incorrect**: 92

**Average Score**: 17.86 %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Question 114 of 329

Question Difficulty: Hard

Mr. X with end stage small cell lung cancer is complaining of intractable hiccup.

What is the management of choice?

- ○ Chlorpromazine
- ○ Gabapentin
- ● Midazolam
- ○ Haloperidol
- ○ Metoclopramide

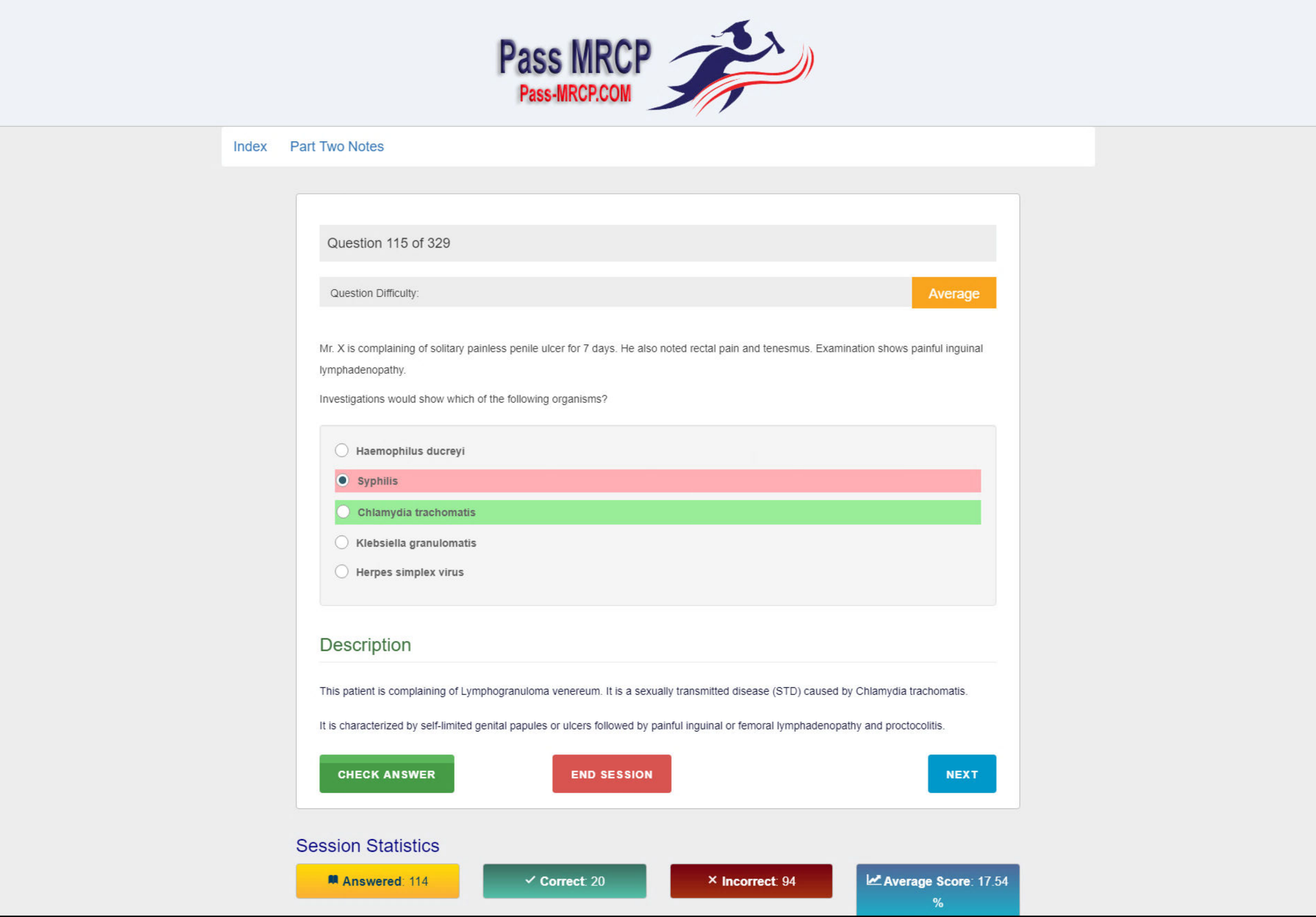
## Description

Chlorpromazine is licensed for the treatment of intractable hiccups; haloperidol, gabapentin and baclofen are alternatives.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 113
✓ Correct: 20
✕ Incorrect: 93
Average Score: 17.7 %



Question 115 of 329

Question Difficulty: Average

Mr. X is complaining of solitary painless penile ulcer for 7 days. He also noted rectal pain and tenesmus. Examination shows painful inguinal lymphadenopathy.

Investigations would show which of the following organisms?

- ○ Haemophilus ducreyi
- ● Syphilis
- ○ Chlamydia trachomatis
- ○ Klebsiella granulomatis
- ○ Herpes simplex virus

## Description

This patient is complaining of Lymphogranuloma venereum. It is a sexually transmitted disease (STD) caused by Chlamydia trachomatis.

It is characterized by self-limited genital papules or ulcers followed by painful inguinal or femoral lymphadenopathy and proctocolitis.

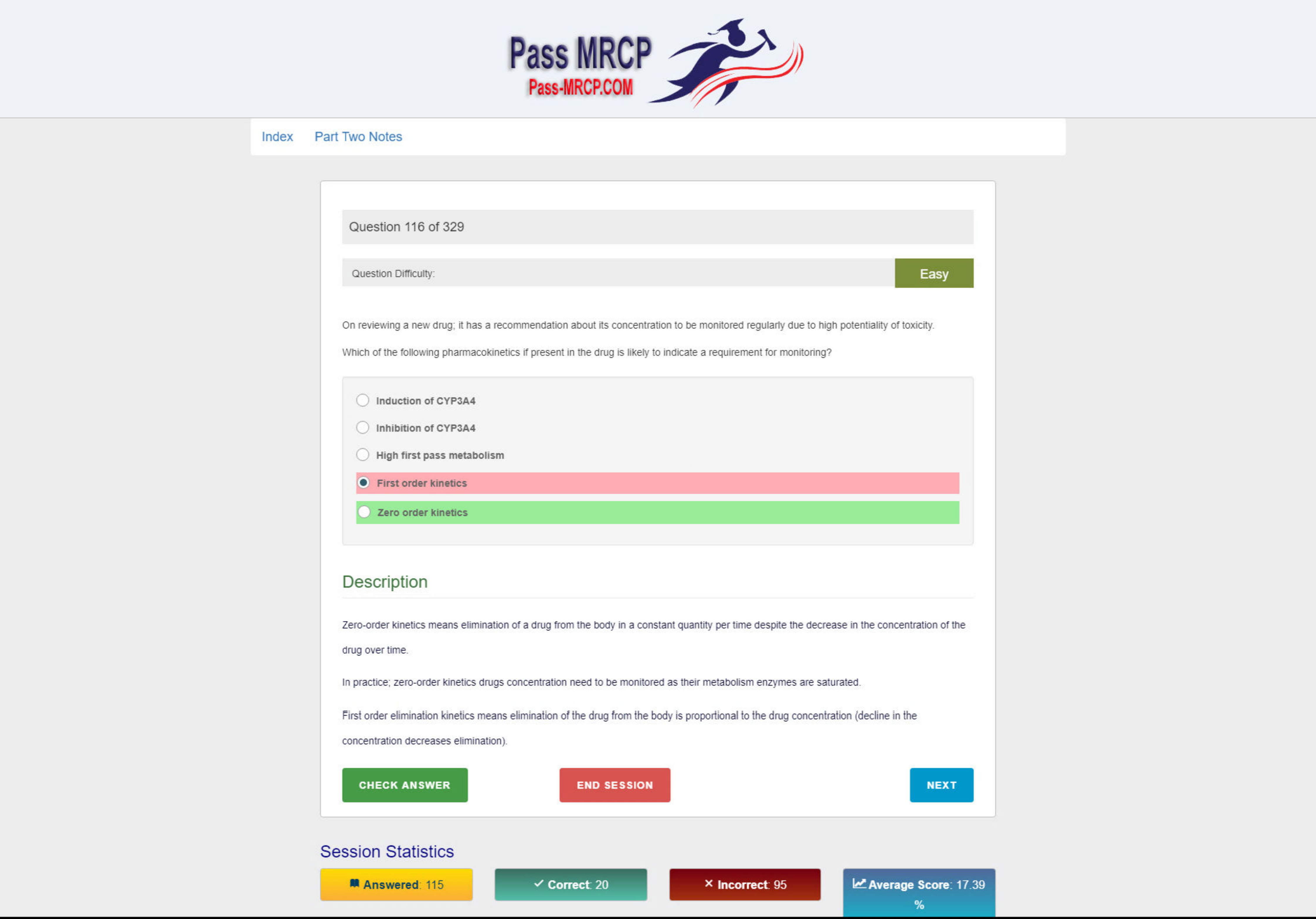
## Session Statistics

Answered: 114

✓ Correct: 20

✕ Incorrect: 94

Average Score: 17.54 %



Question 116 of 329

Question Difficulty: **Easy**

On reviewing a new drug; it has a recommendation about its concentration to be monitored regularly due to high potentiality of toxicity.

Which of the following pharmacokinetics if present in the drug is likely to indicate a requirement for monitoring?

- ○ **Induction of CYP3A4**
- ○ **Inhibition of CYP3A4**
- ○ **High first pass metabolism**
- ● **First order kinetics**
- ○ **Zero order kinetics**

## Description

Zero-order kinetics means elimination of a drug from the body in a constant quantity per time despite the decrease in the concentration of the drug over time.

In practice; zero-order kinetics drugs concentration need to be monitored as their metabolism enzymes are saturated.

First order elimination kinetics means elimination of the drug from the body is proportional to the drug concentration (decline in the concentration decreases elimination).

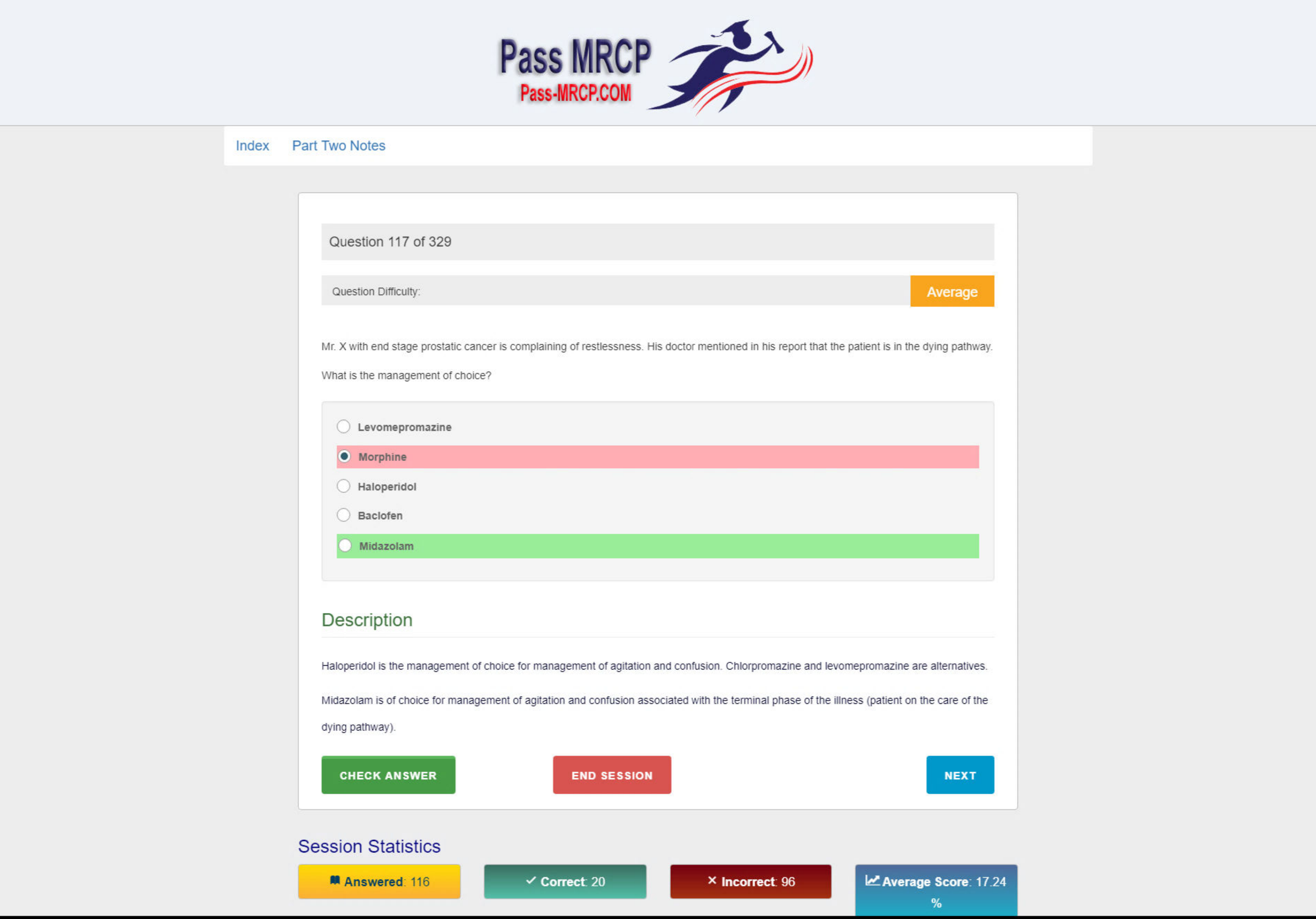
## Session Statistics

**Answered**: 115

✓ **Correct**: 20

× **Incorrect**: 95

**Average Score**: 17.39 %



Question 117 of 329

Question Difficulty: Average

Mr. X with end stage prostatic cancer is complaining of restlessness. His doctor mentioned in his report that the patient is in the dying pathway.

What is the management of choice?

- ○ Levomepromazine
- ● Morphine
- ○ Haloperidol
- ○ Baclofen
- ○ Midazolam

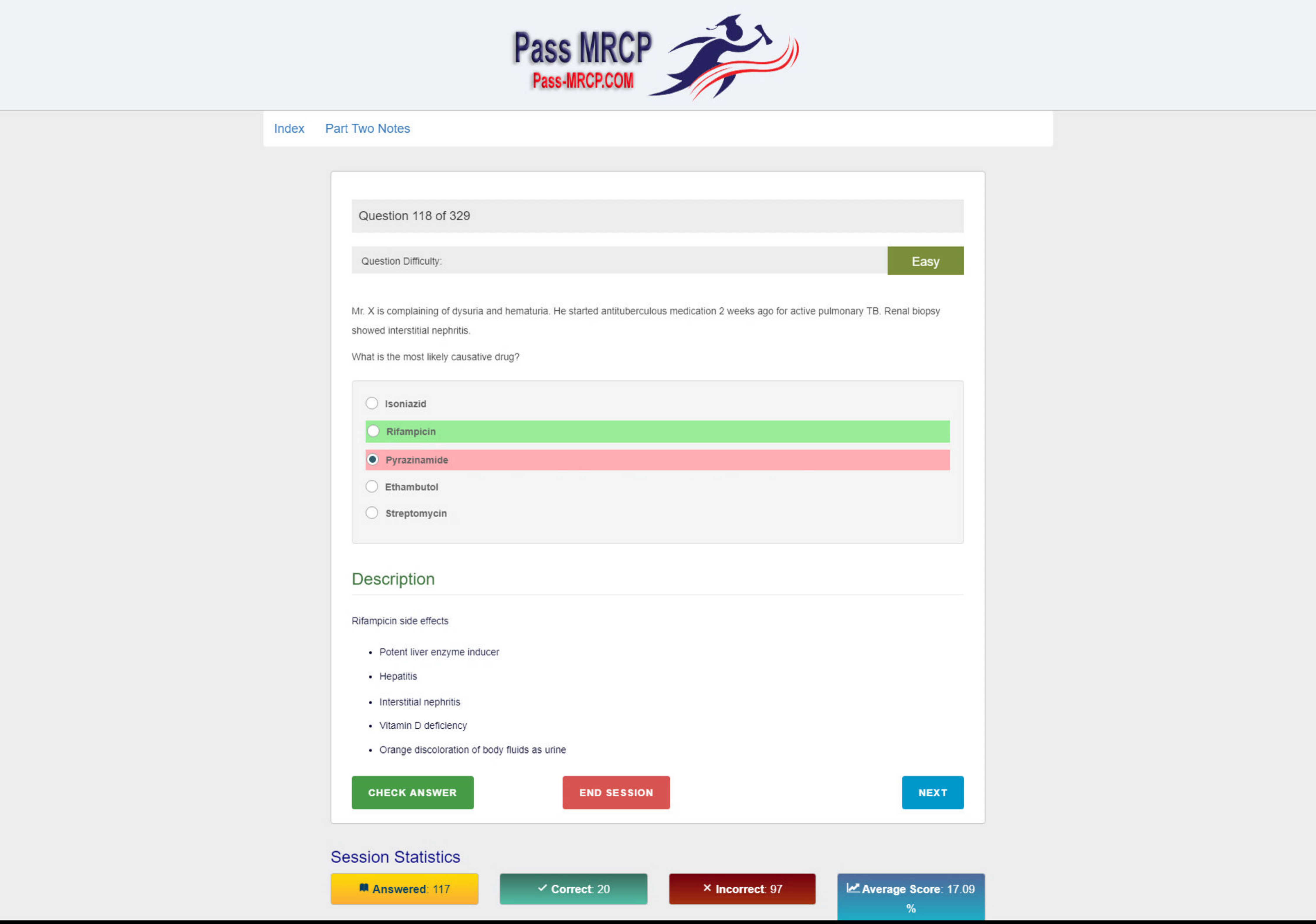
## Description

Haloperidol is the management of choice for management of agitation and confusion. Chlorpromazine and levomepromazine are alternatives.

Midazolam is of choice for management of agitation and confusion associated with the terminal phase of the illness (patient on the care of the dying pathway).

Session Statistics

**Answered**: 116
✓ **Correct**: 20
✕ **Incorrect**: 96
**Average Score**: 17.24 %



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Question 118 of 329

Question Difficulty: **Easy**

Mr. X is complaining of dysuria and hematuria. He started antituberculous medication 2 weeks ago for active pulmonary TB. Renal biopsy showed interstitial nephritis.

What is the most likely causative drug?

○ **Isoniazid**
○ **Rifampicin**
● **Pyrazinamide**
○ **Ethambutol**
○ **Streptomycin**

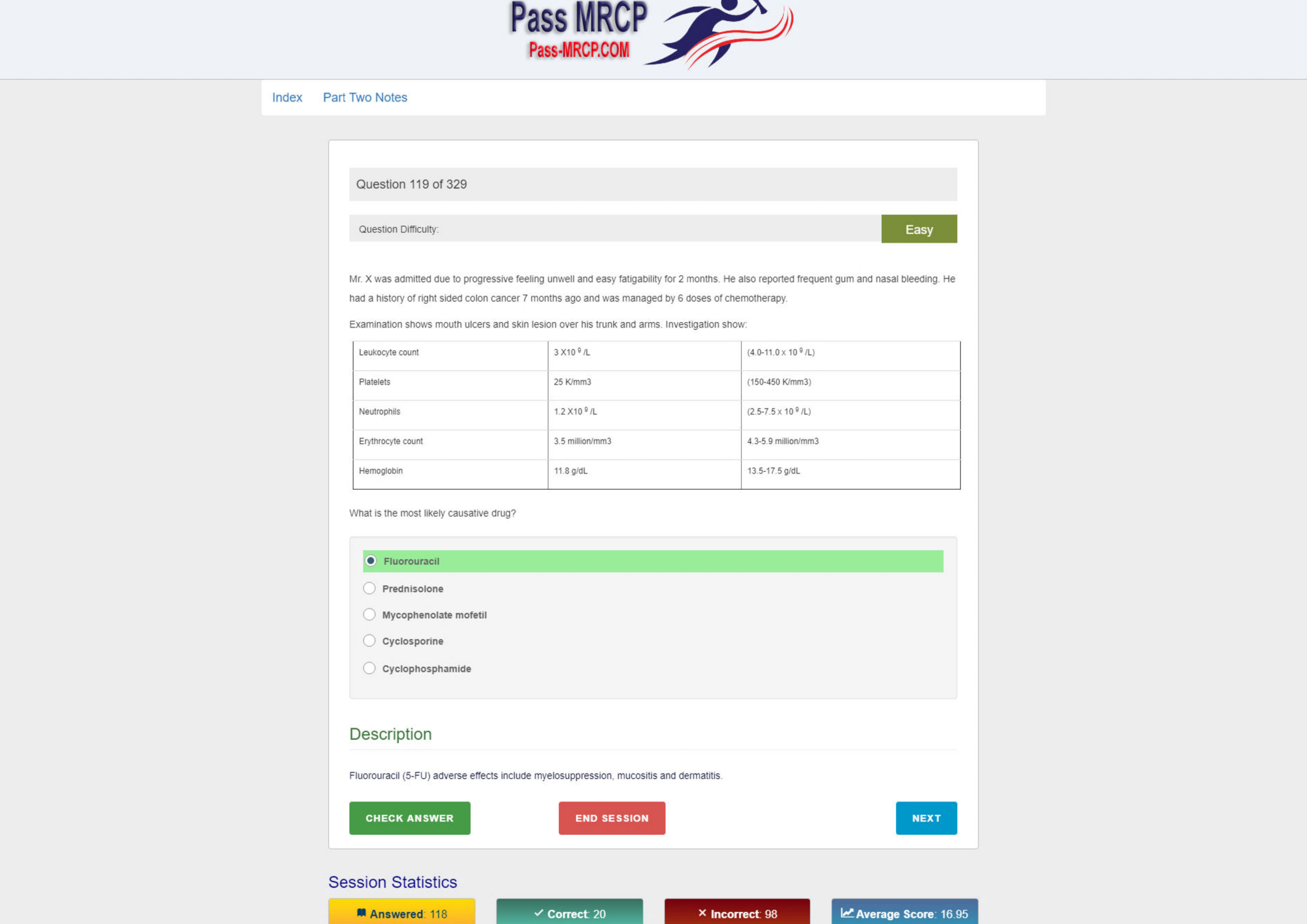
## Description

Rifampicin side effects

- Potent liver enzyme inducer
- Hepatitis
- Interstitial nephritis
- Vitamin D deficiency
- Orange discoloration of body fluids as urine

Session Statistics

**Answered**: 117
**Correct**: 20
**Incorrect**: 97
**Average Score**: 17.09 %



Question 119 of 329

Question Difficulty: Easy

Mr. X was admitted due to progressive feeling unwell and easy fatigability for 2 months. He also reported frequent gum and nasal bleeding. He had a history of right sided colon cancer 7 months ago and was managed by 6 doses of chemotherapy.

Examination shows mouth ulcers and skin lesion over his trunk and arms. Investigation show:

| | | |
|---|---|---|
| Leukocyte count | 3 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 25 K/mm3 | (150-450 K/mm3) |
| Neutrophils | 1.2 X10 $^{9}$ /L | (2.5-7.5 x 10 $^{9}$ /L) |
| Erythrocyte count | 3.5 million/mm3 | 4.3-5.9 million/mm3 |
| Hemoglobin | 11.8 g/dL | 13.5-17.5 g/dL |

What is the most likely causative drug?

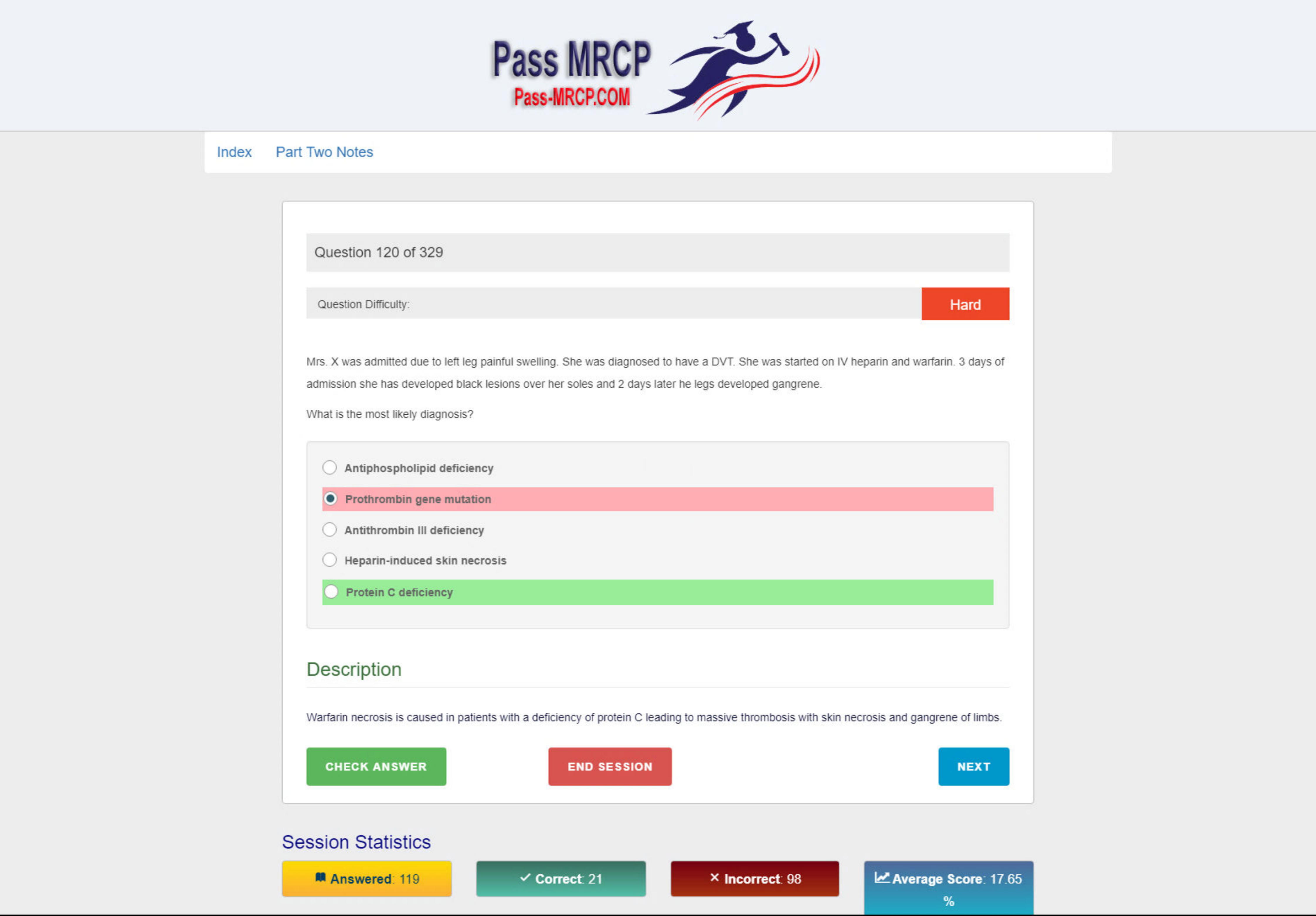
- ● **Fluorouracil**
- ○ **Prednisolone**
- ○ **Mycophenolate mofetil**
- ○ **Cyclosporine**
- ○ **Cyclophosphamide**

## Description

Fluorouracil (5-FU) adverse effects include myelosuppression, mucositis and dermatitis.

Session Statistics

Answered: 118
✓ Correct: 20
× Incorrect: 98
Average Score: 16.95



Question 120 of 329

Question Difficulty: Hard

Mrs. X was admitted due to left leg painful swelling. She was diagnosed to have a DVT. She was started on IV heparin and warfarin. 3 days of admission she has developed black lesions over her soles and 2 days later he legs developed gangrene.

What is the most likely diagnosis?

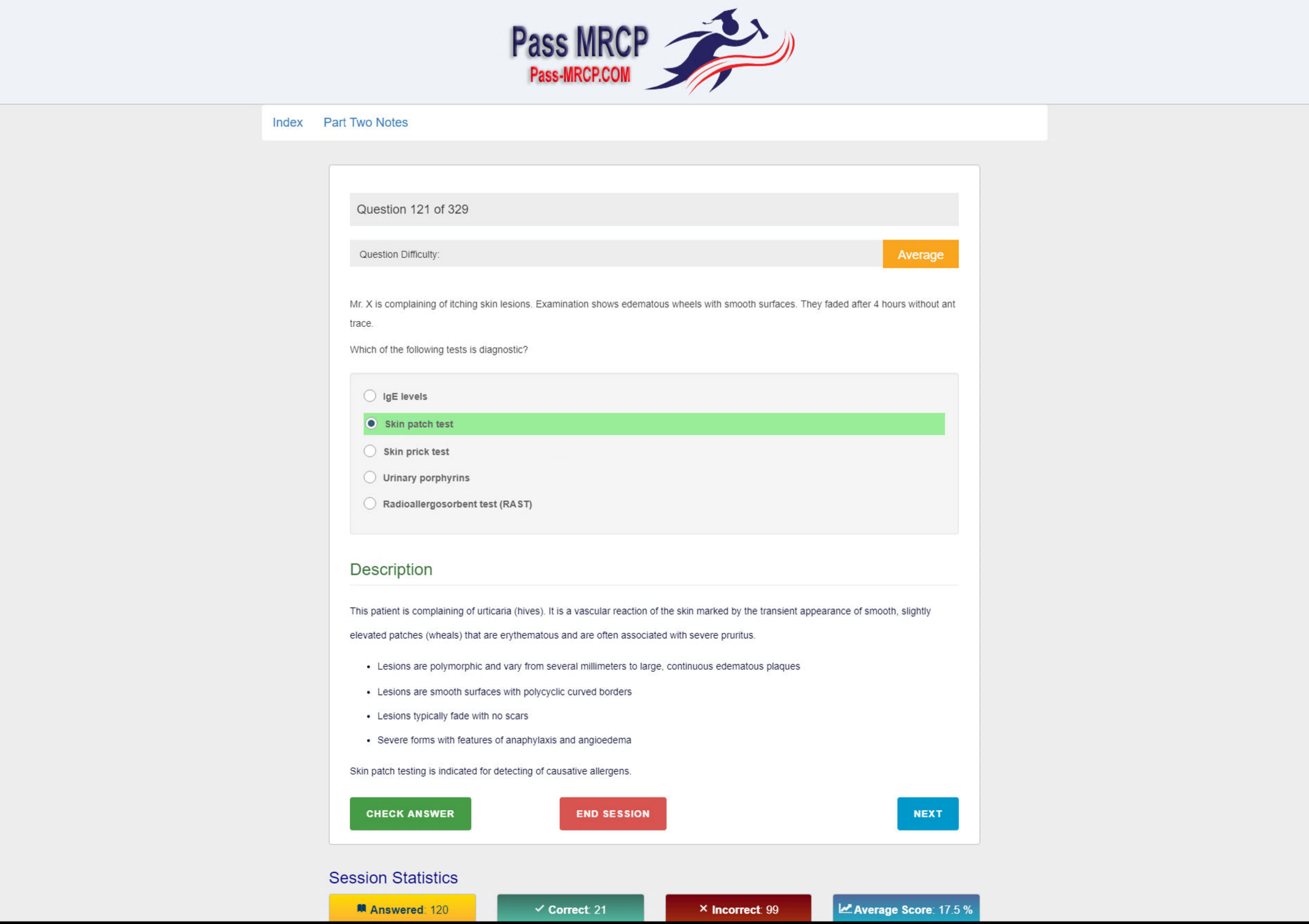
- ○ **Antiphospholipid deficiency**
- ● **Prothrombin gene mutation**
- ○ **Antithrombin III deficiency**
- ○ **Heparin-induced skin necrosis**
- ○ **Protein C deficiency**

## Description

Warfarin necrosis is caused in patients with a deficiency of protein C leading to massive thrombosis with skin necrosis and gangrene of limbs.

Session Statistics

**Answered**: 119
✓ **Correct**: 21
× **Incorrect**: 98
**Average Score**: 17.65 %



Question 121 of 329

Question Difficulty: **Average**

Mr. X is complaining of itching skin lesions. Examination shows edematous wheels with smooth surfaces. They faded after 4 hours without ant trace.

Which of the following tests is diagnostic?

○ **IgE levels**
● **Skin patch test**
○ **Skin prick test**
○ **Urinary porphyrins**
○ **Radioallergosorbent test (RAST)**

## Description

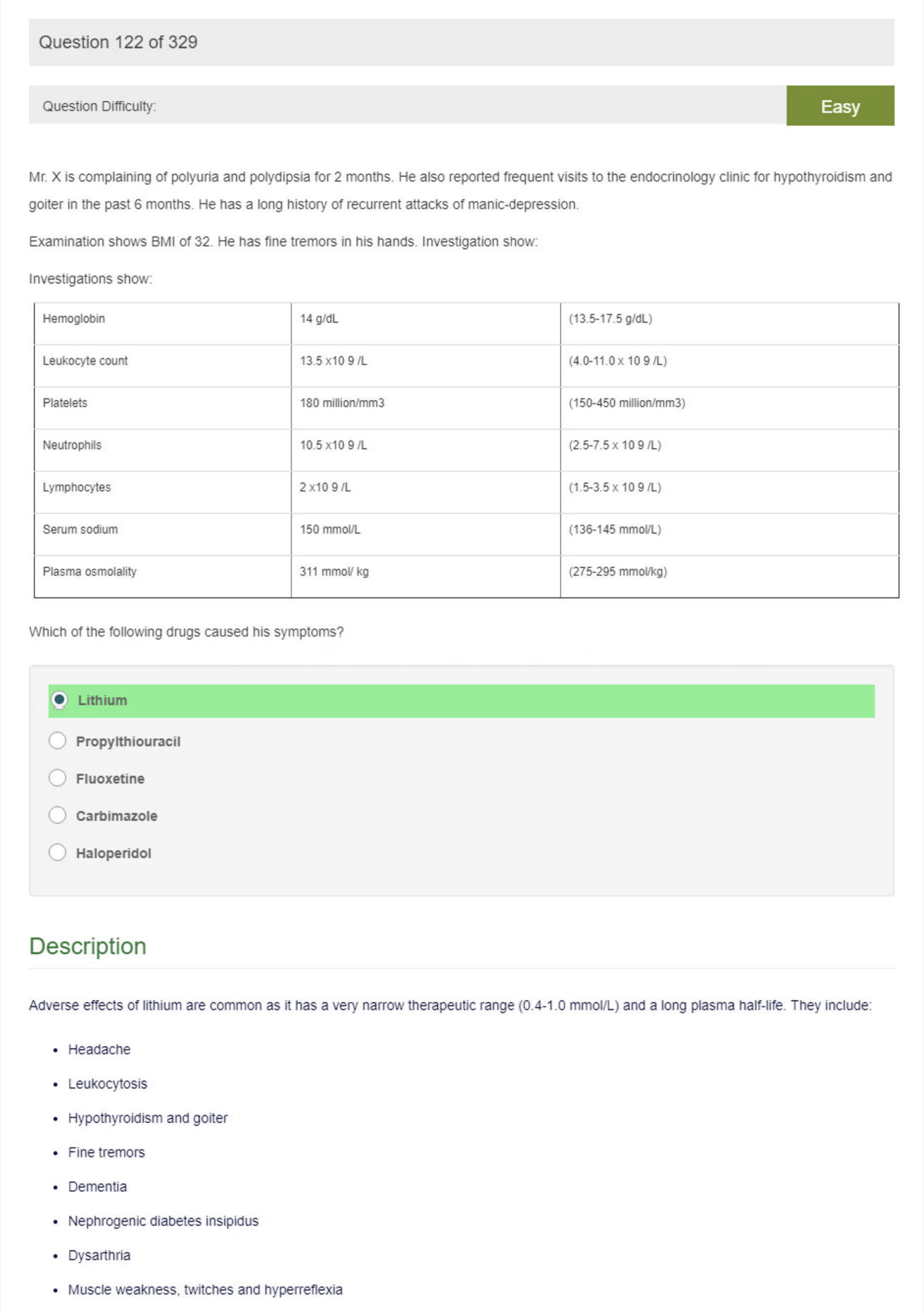
This patient is complaining of urticaria (hives). It is a vascular reaction of the skin marked by the transient appearance of smooth, slightly elevated patches (wheals) that are erythematous and are often associated with severe pruritus.

- Lesions are polymorphic and vary from several millimeters to large, continuous edematous plaques
- Lesions are smooth surfaces with polycyclic curved borders
- Lesions typically fade with no scars
- Severe forms with features of anaphylaxis and angioedema

Skin patch testing is indicated for detecting of causative allergens.

## Session Statistics

**Answered**: 120
✓ **Correct**: 21
✕ **Incorrect**: 99
**Average Score**: 17.5 %



## Question 122 of 329

Question Difficulty: **Easy**

Mr. X is complaining of polyuria and polydipsia for 2 months. He also reported frequent visits to the endocrinology clinic for hypothyroidism and goiter in the past 6 months. He has a long history of recurrent attacks of manic-depression.

Examination shows BMI of 32. He has fine tremors in his hands. Investigation show:

Investigations show:

| | | |
|---|---|---|
| Hemoglobin | 14 g/dL | (13.5-17.5 g/dL) |
| Leukocyte count | 13.5 x10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 180 million/mm3 | (150-450 million/mm3) |
| Neutrophils | 10.5 x10 9 /L | (2.5-7.5 x 10 9 /L) |
| Lymphocytes | 2 x10 9 /L | (1.5-3.5 x 10 9 /L) |
| Serum sodium | 150 mmol/L | (136-145 mmol/L) |
| Plasma osmolality | 311 mmol/ kg | (275-295 mmol/kg) |

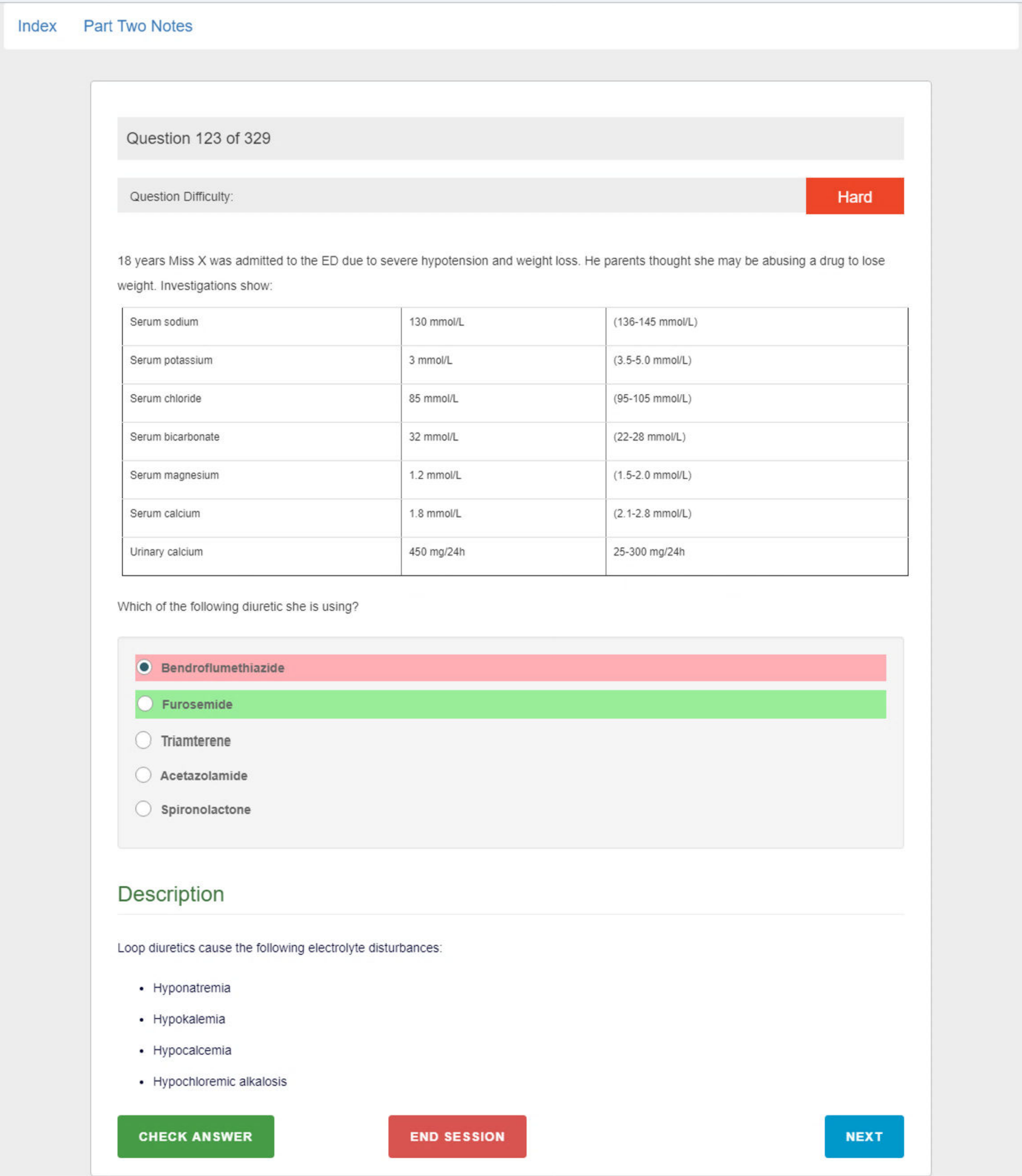
Which of the following drugs caused his symptoms?

● **Lithium**
○ **Propylthiouracil**
○ **Fluoxetine**
○ **Carbimazole**
○ **Haloperidol**

## Description

Adverse effects of lithium are common as it has a very narrow therapeutic range (0.4-1.0 mmol/L) and a long plasma half-life. They include:

- Headache
- Leukocytosis
- Hypothyroidism and goiter
- Fine tremors
- Dementia
- Nephrogenic diabetes insipidus
- Dysarthria
- Muscle weakness, twitches and hyperreflexia



Question 123 of 329

Question Difficulty: Hard

18 years Miss X was admitted to the ED due to severe hypotension and weight loss. He parents thought she may be abusing a drug to lose weight. Investigations show:

| | | |
|---|---|---|
| Serum sodium | 130 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3 mmol/L | (3.5-5.0 mmol/L) |
| Serum chloride | 85 mmol/L | (95-105 mmol/L) |
| Serum bicarbonate | 32 mmol/L | (22-28 mmol/L) |
| Serum magnesium | 1.2 mmol/L | (1.5-2.0 mmol/L) |
| Serum calcium | 1.8 mmol/L | (2.1-2.8 mmol/L) |
| Urinary calcium | 450 mg/24h | 25-300 mg/24h |

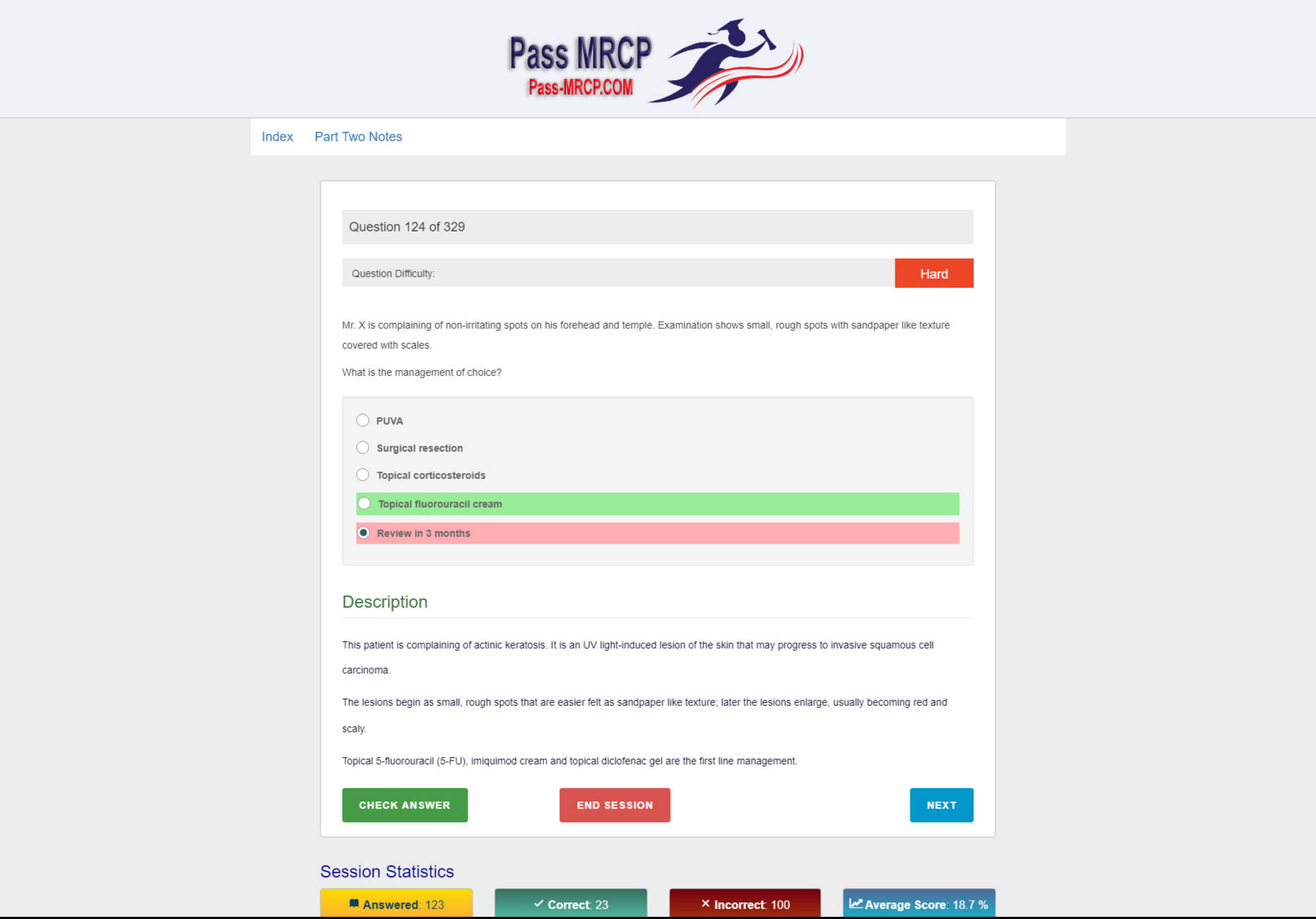
Which of the following diuretic she is using?

● **Bendroflumethiazide**
○ **Furosemide**
○ **Triamterene**
○ **Acetazolamide**
○ **Spironolactone**

## Description

Loop diuretics cause the following electrolyte disturbances:

- Hyponatremia
- Hypokalemia
- Hypocalcemia
- Hypochloremic alkalosis



Question 124 of 329

Question Difficulty: Hard

Mr. X is complaining of non-irritating spots on his forehead and temple. Examination shows small, rough spots with sandpaper like texture covered with scales.

What is the management of choice?

- ○ PUVA
- ○ Surgical resection
- ○ Topical corticosteroids
- ○ Topical fluorouracil cream
- ● Review in 3 months

## Description

This patient is complaining of actinic keratosis. It is an UV light-induced lesion of the skin that may progress to invasive squamous cell carcinoma.

The lesions begin as small, rough spots that are easier felt as sandpaper like texture; later the lesions enlarge, usually becoming red and scaly.

Topical 5-fluorouracil (5-FU), imiquimod cream and topical diclofenac gel are the first line management.

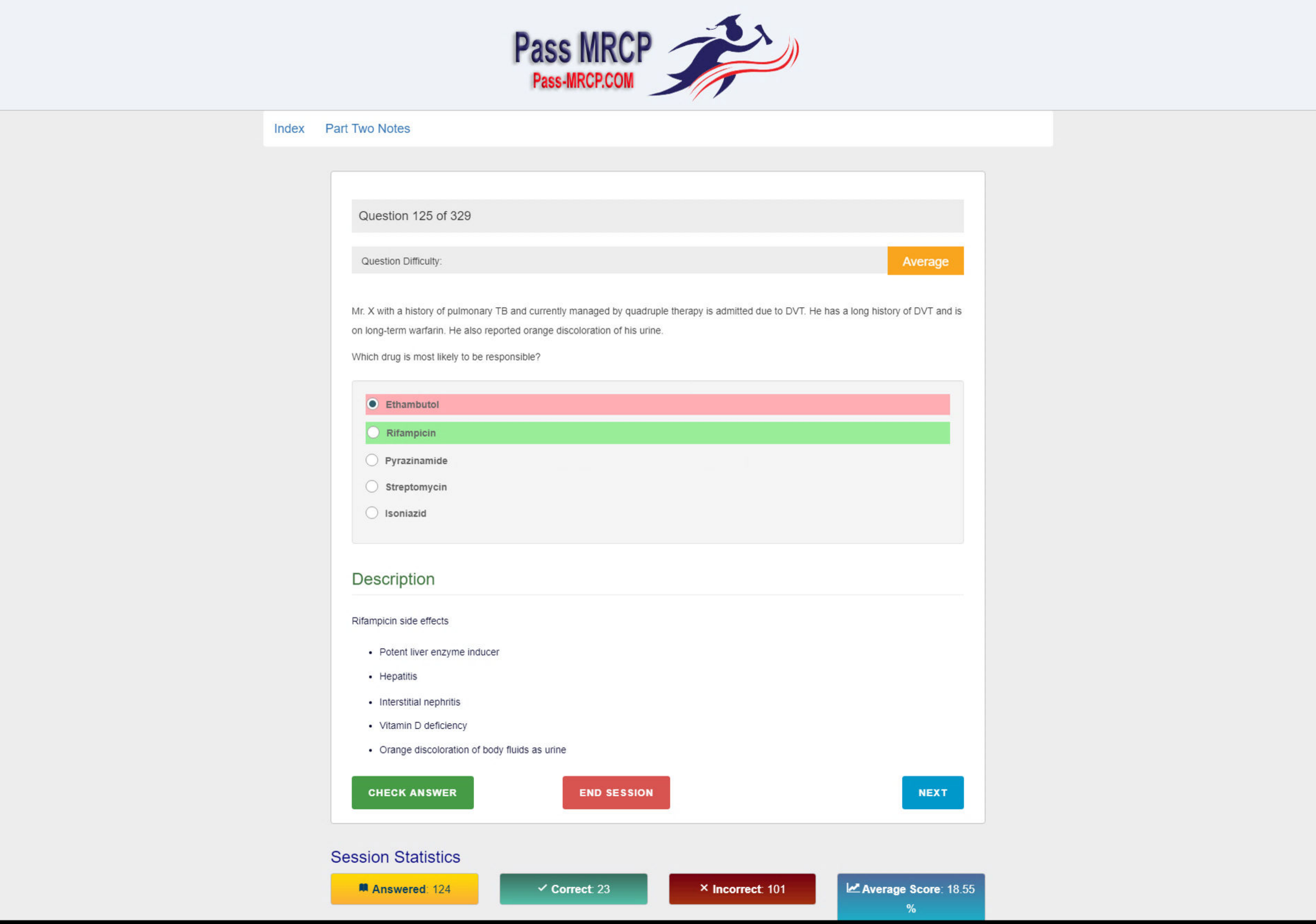
## Session Statistics

Answered: 123

Correct: 23

Incorrect: 100

Average Score: 18.7 %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Question 125 of 329

Question Difficulty: Average

Mr. X with a history of pulmonary TB and currently managed by quadruple therapy is admitted due to DVT. He has a long history of DVT and is on long-term warfarin. He also reported orange discoloration of his urine.

Which drug is most likely to be responsible?

● Ethambutol
○ Rifampicin
○ Pyrazinamide
○ Streptomycin
○ Isoniazid

## Description

Rifampicin side effects

- Potent liver enzyme inducer
- Hepatitis
- Interstitial nephritis
- Vitamin D deficiency
- Orange discoloration of body fluids as urine

CHECK ANSWER
END SESSION
NEXT

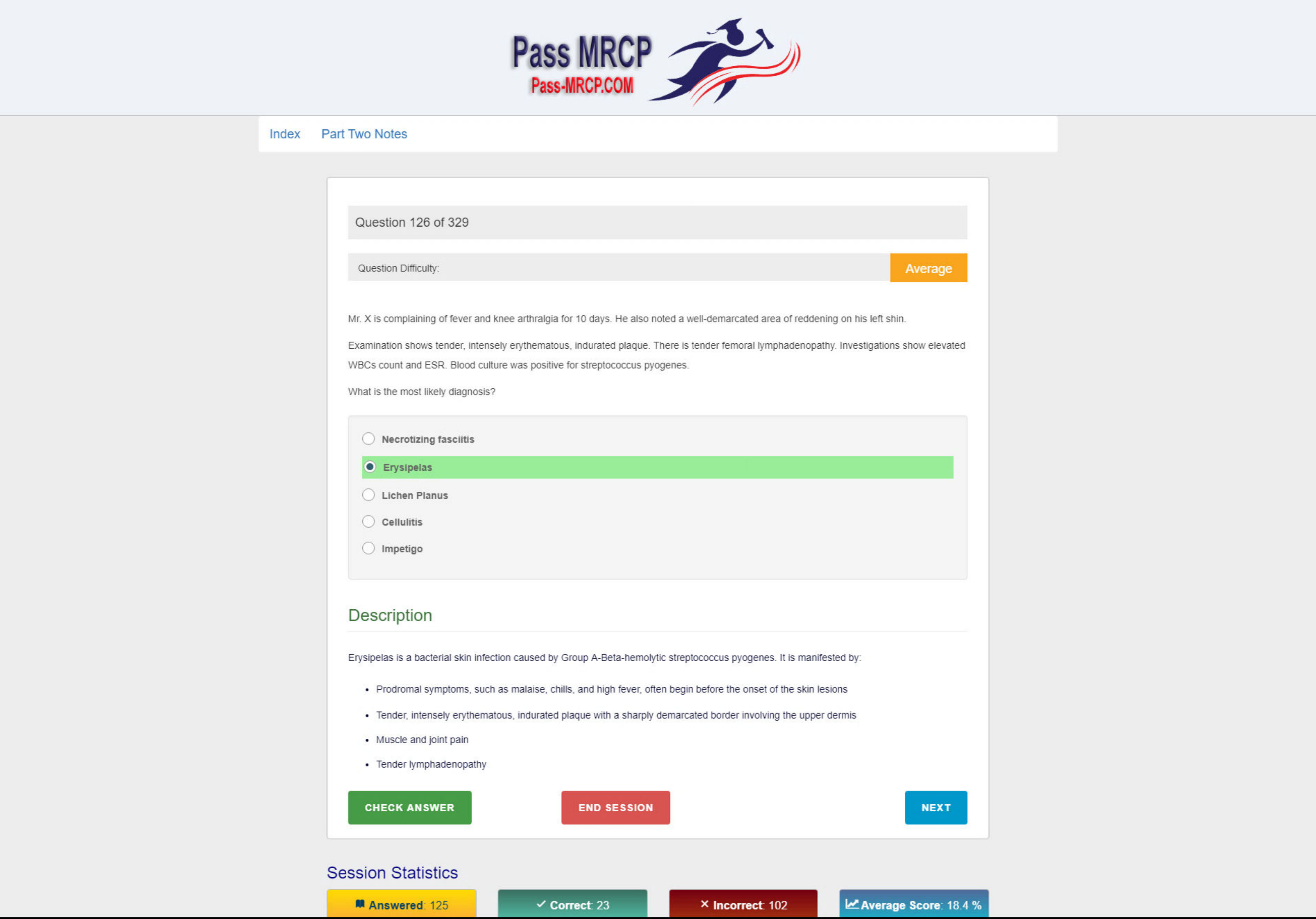
## Session Statistics

**Answered**: 124

**Correct**: 23

**Incorrect**: 101

**Average Score**: 18.55 %



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Question 126 of 329

Question Difficulty: Average

Mr. X is complaining of fever and knee arthralgia for 10 days. He also noted a well-demarcated area of reddening on his left shin.

Examination shows tender, intensely erythematous, indurated plaque. There is tender femoral lymphadenopathy. Investigations show elevated WBCs count and ESR. Blood culture was positive for streptococcus pyogenes.

What is the most likely diagnosis?

○ **Necrotizing fasciitis**
● **Erysipelas**
○ **Lichen Planus**
○ **Cellulitis**
○ **Impetigo**

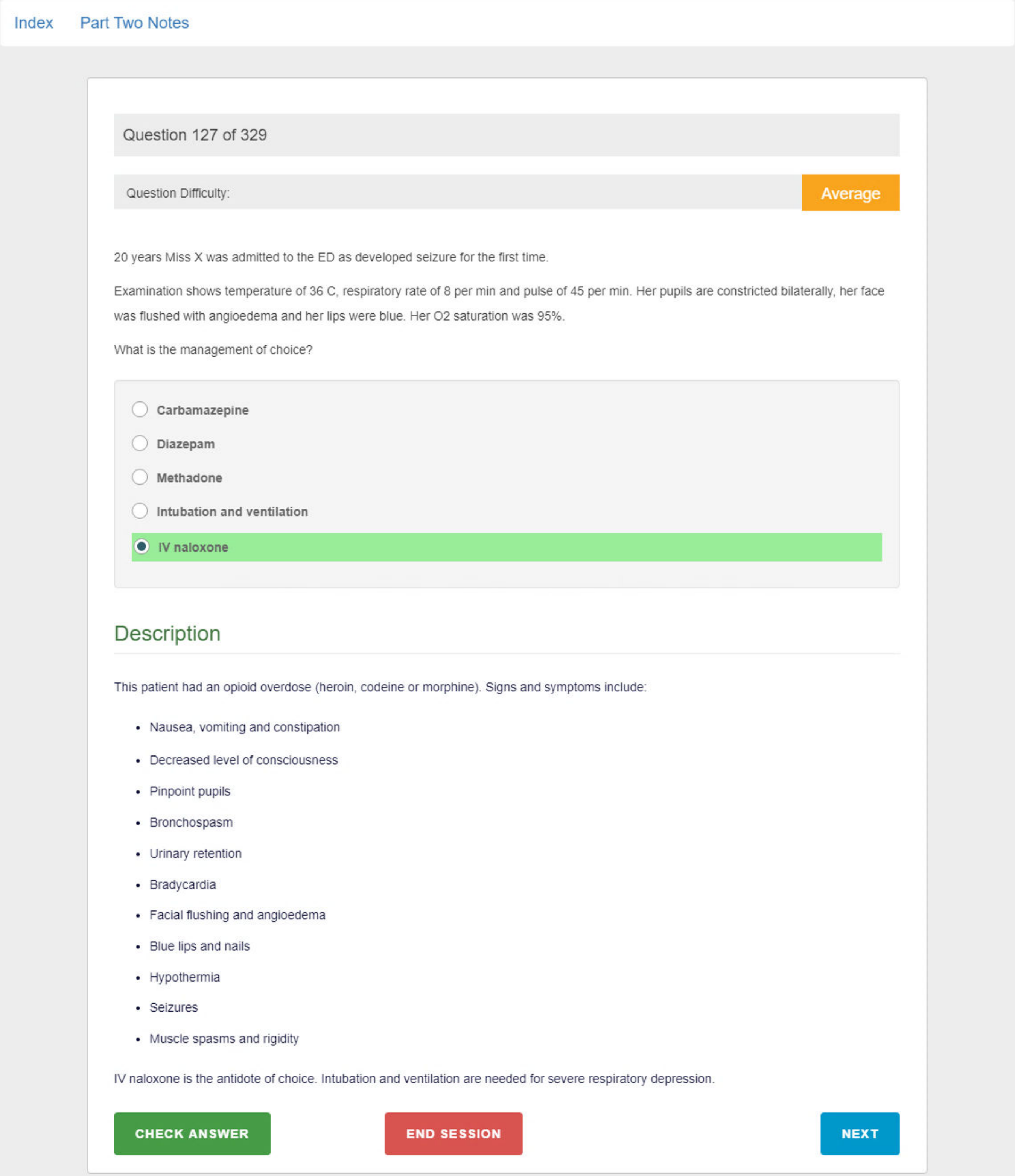
## Description

Erysipelas is a bacterial skin infection caused by Group A-Beta-hemolytic streptococcus pyogenes. It is manifested by:

- Prodromal symptoms, such as malaise, chills, and high fever, often begin before the onset of the skin lesions
- Tender, intensely erythematous, indurated plaque with a sharply demarcated border involving the upper dermis
- Muscle and joint pain
- Tender lymphadenopathy

Session Statistics

**Answered**: 125
**Correct**: 23
**Incorrect**: 102
**Average Score**: 18.4 %



Question 127 of 329

Question Difficulty: **Average**

20 years Miss X was admitted to the ED as developed seizure for the first time.

Examination shows temperature of 36 C, respiratory rate of 8 per min and pulse of 45 per min. Her pupils are constricted bilaterally, her face was flushed with angioedema and her lips were blue. Her O2 saturation was 95%.

What is the management of choice?

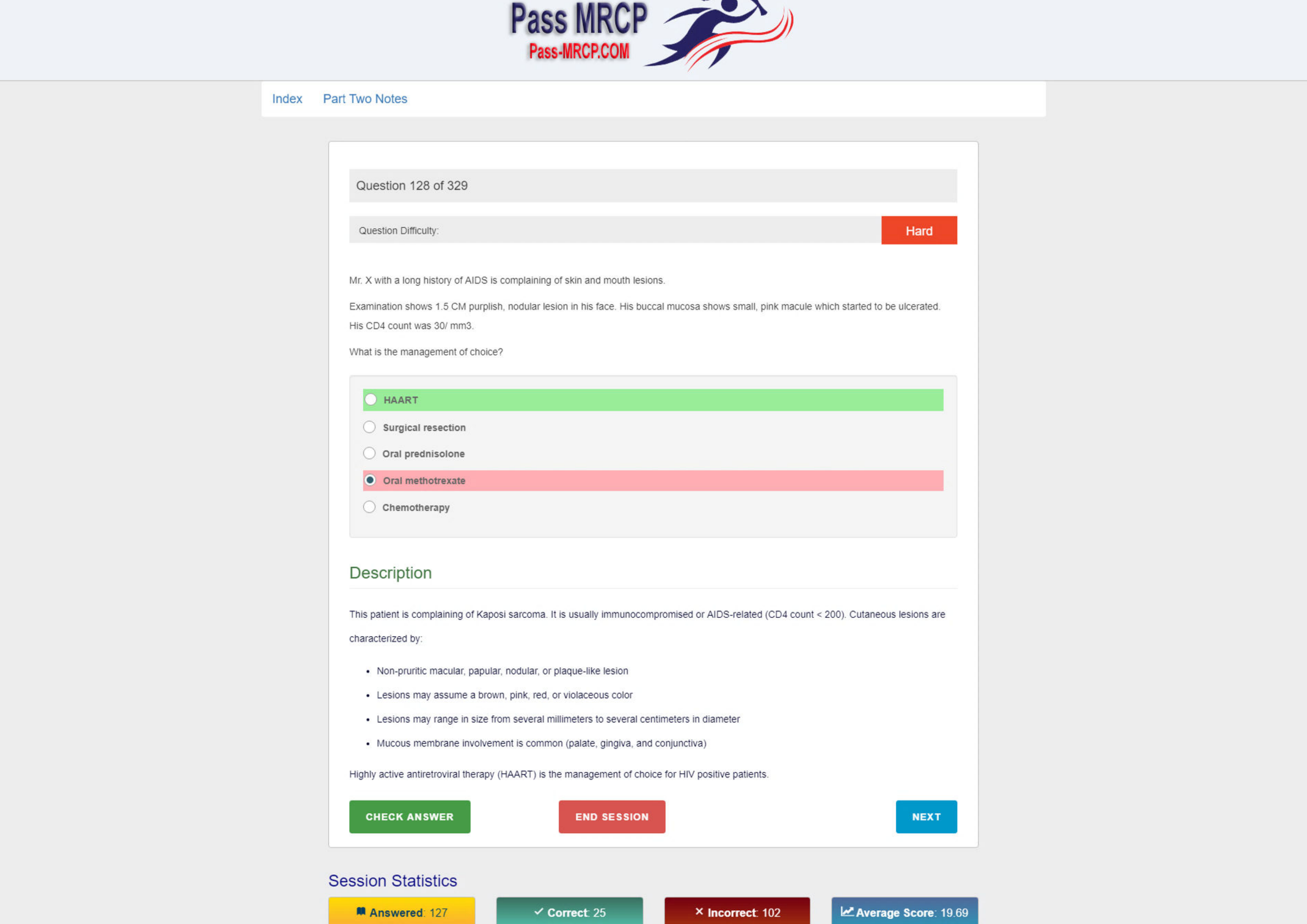
○ **Carbamazepine**
○ **Diazepam**
○ **Methadone**
○ **Intubation and ventilation**
● **IV naloxone**

## Description

This patient had an opioid overdose (heroin, codeine or morphine). Signs and symptoms include:

- Nausea, vomiting and constipation
- Decreased level of consciousness
- Pinpoint pupils
- Bronchospasm
- Urinary retention
- Bradycardia
- Facial flushing and angioedema
- Blue lips and nails
- Hypothermia
- Seizures
- Muscle spasms and rigidity

IV naloxone is the antidote of choice. Intubation and ventilation are needed for severe respiratory depression.



Question 128 of 329

Question Difficulty: **Hard**

Mr. X with a long history of AIDS is complaining of skin and mouth lesions.

Examination shows 1.5 CM purplish, nodular lesion in his face. His buccal mucosa shows small, pink macule which started to be ulcerated. His CD4 count was 30/ mm3.

What is the management of choice?

○ **HAART**

○ **Surgical resection**

○ **Oral prednisolone**

● **Oral methotrexate**

○ **Chemotherapy**

## Description

This patient is complaining of Kaposi sarcoma. It is usually immunocompromised or AIDS-related (CD4 count < 200). Cutaneous lesions are characterized by:

- Non-pruritic macular, papular, nodular, or plaque-like lesion
- Lesions may assume a brown, pink, red, or violaceous color
- Lesions may range in size from several millimeters to several centimeters in diameter
- Mucous membrane involvement is common (palate, gingiva, and conjunctiva)

Highly active antiretroviral therapy (HAART) is the management of choice for HIV positive patients.

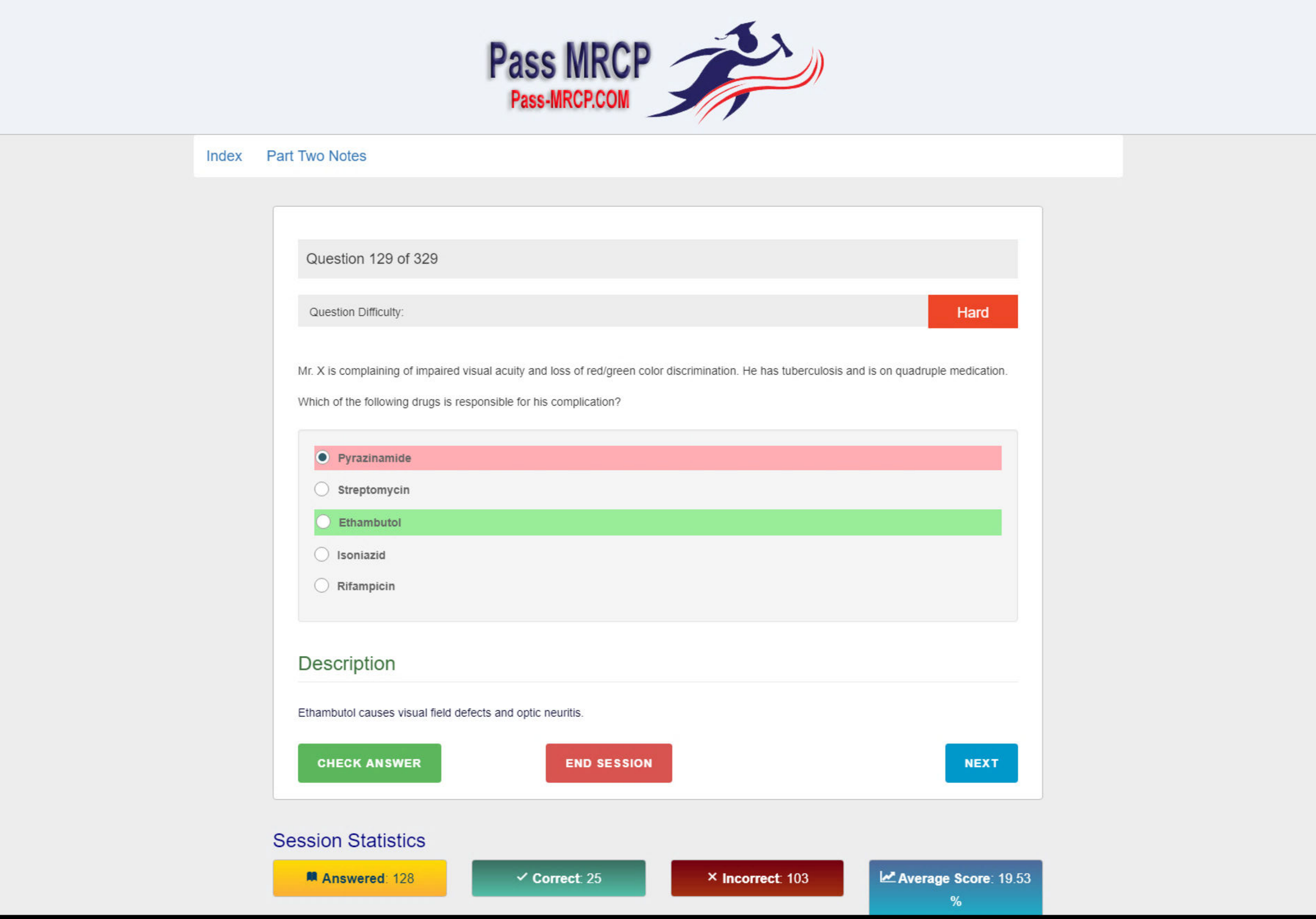
Session Statistics

**Answered**: 127

**Correct**: 25

**Incorrect**: 102

**Average Score**: 19.69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Question 129 of 329

Question Difficulty: Hard

Mr. X is complaining of impaired visual acuity and loss of red/green color discrimination. He has tuberculosis and is on quadruple medication.

Which of the following drugs is responsible for his complication?

- ● Pyrazinamide
- ○ Streptomycin
- ○ Ethambutol
- ○ Isoniazid
- ○ Rifampicin

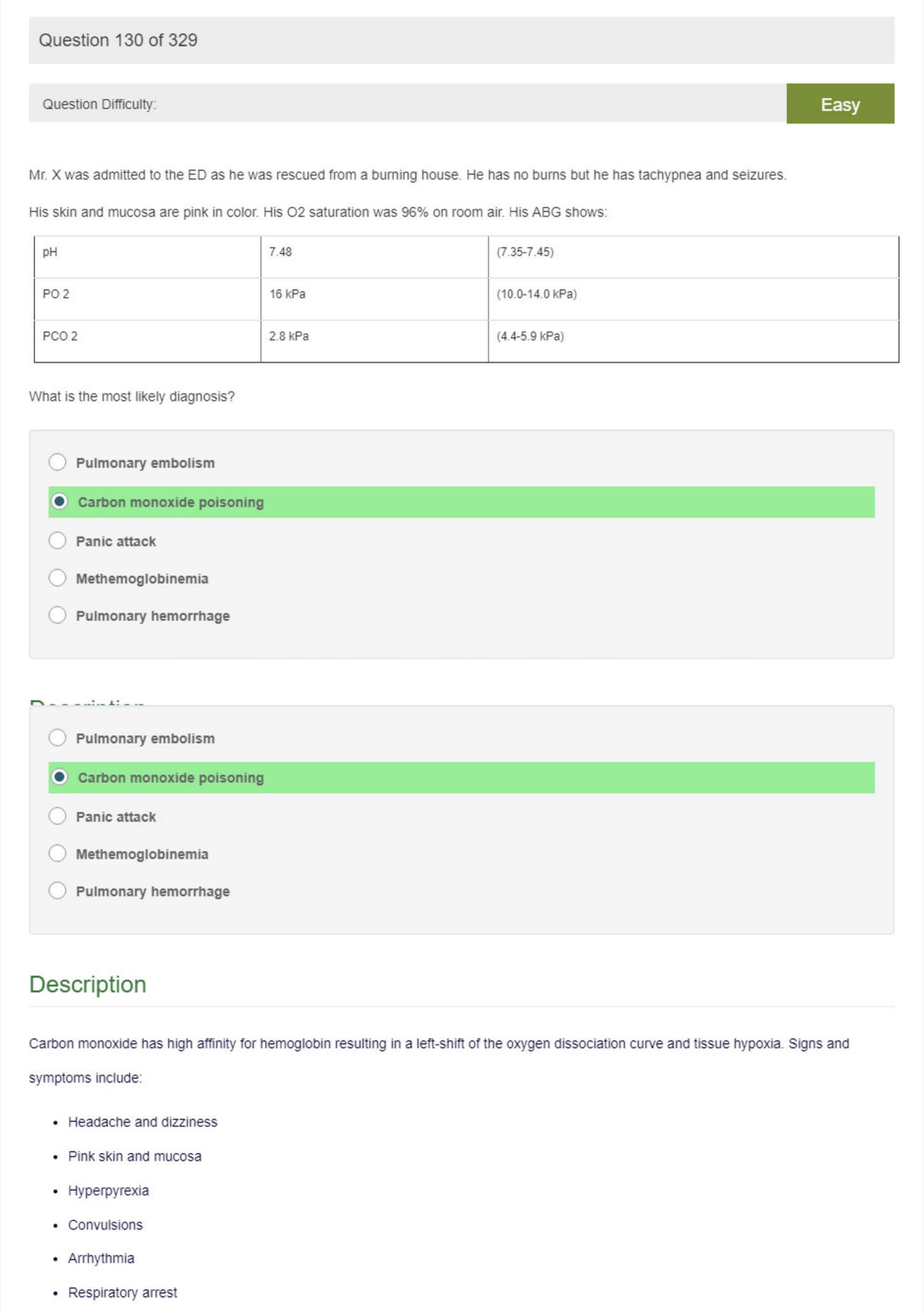
## Description

Ethambutol causes visual field defects and optic neuritis.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 128
✓ Correct: 25
× Incorrect: 103
Average Score: 19.53 %



Question 130 of 329

Question Difficulty: **Easy**

Mr. X was admitted to the ED as he was rescued from a burning house. He has no burns but he has tachypnea and seizures.

His skin and mucosa are pink in color. His O2 saturation was 96% on room air. His ABG shows:

| | | |
|---|---|---|
| pH | 7.48 | (7.35-7.45) |
| PO 2 | 16 kPa | (10.0-14.0 kPa) |
| PCO 2 | 2.8 kPa | (4.4-5.9 kPa) |

What is the most likely diagnosis?

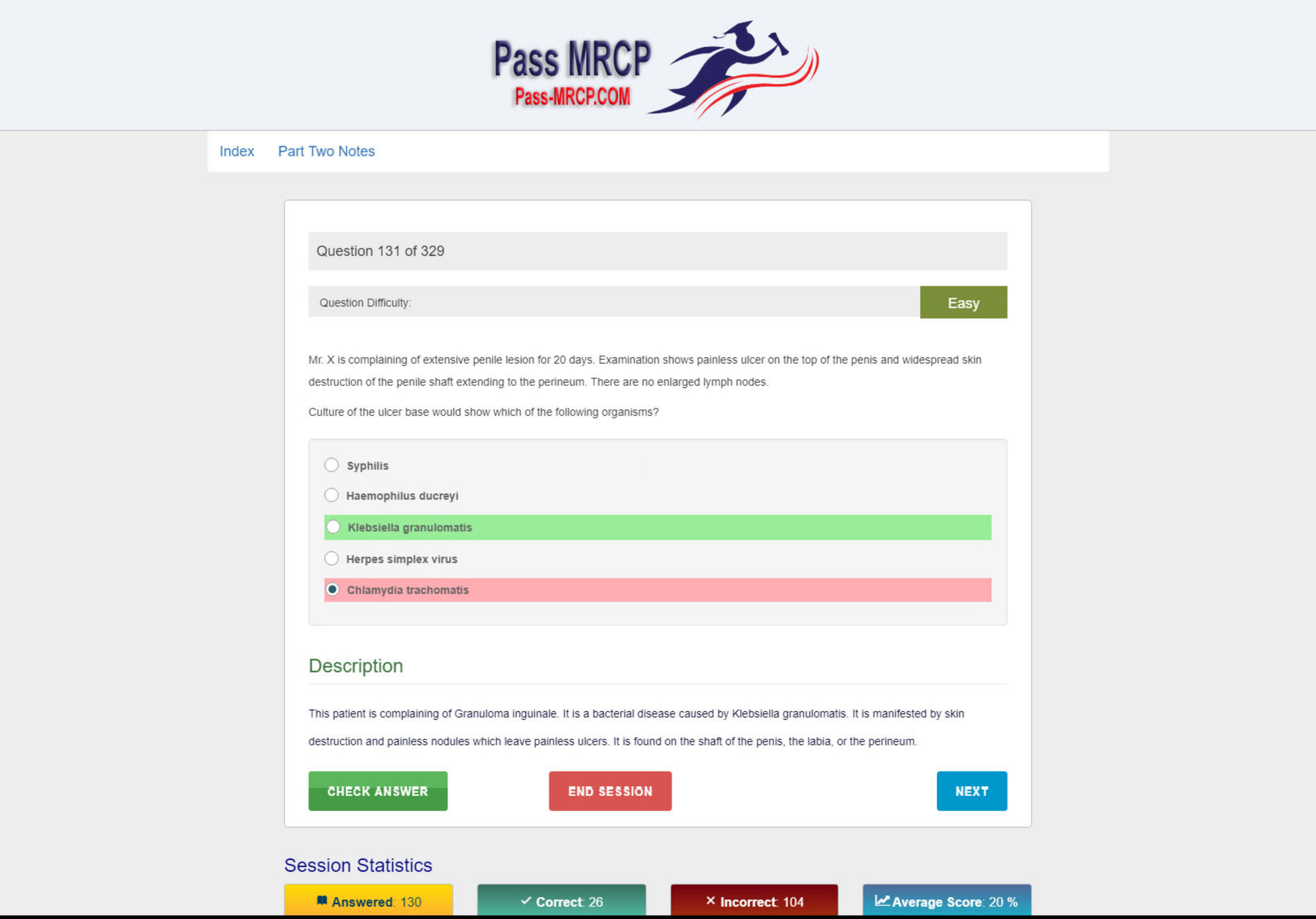
○ **Pulmonary embolism**
● **Carbon monoxide poisoning**
○ **Panic attack**
○ **Methemoglobinemia**
○ **Pulmonary hemorrhage**

○ **Pulmonary embolism**
● **Carbon monoxide poisoning**
○ **Panic attack**
○ **Methemoglobinemia**
○ **Pulmonary hemorrhage**

## Description

Carbon monoxide has high affinity for hemoglobin resulting in a left-shift of the oxygen dissociation curve and tissue hypoxia. Signs and symptoms include:

- Headache and dizziness
- Pink skin and mucosa
- Hyperpyrexia
- Convulsions
- Arrhythmia
- Respiratory arrest



Question 131 of 329

Question Difficulty: Easy

Mr. X is complaining of extensive penile lesion for 20 days. Examination shows painless ulcer on the top of the penis and widespread skin destruction of the penile shaft extending to the perineum. There are no enlarged lymph nodes.

Culture of the ulcer base would show which of the following organisms?

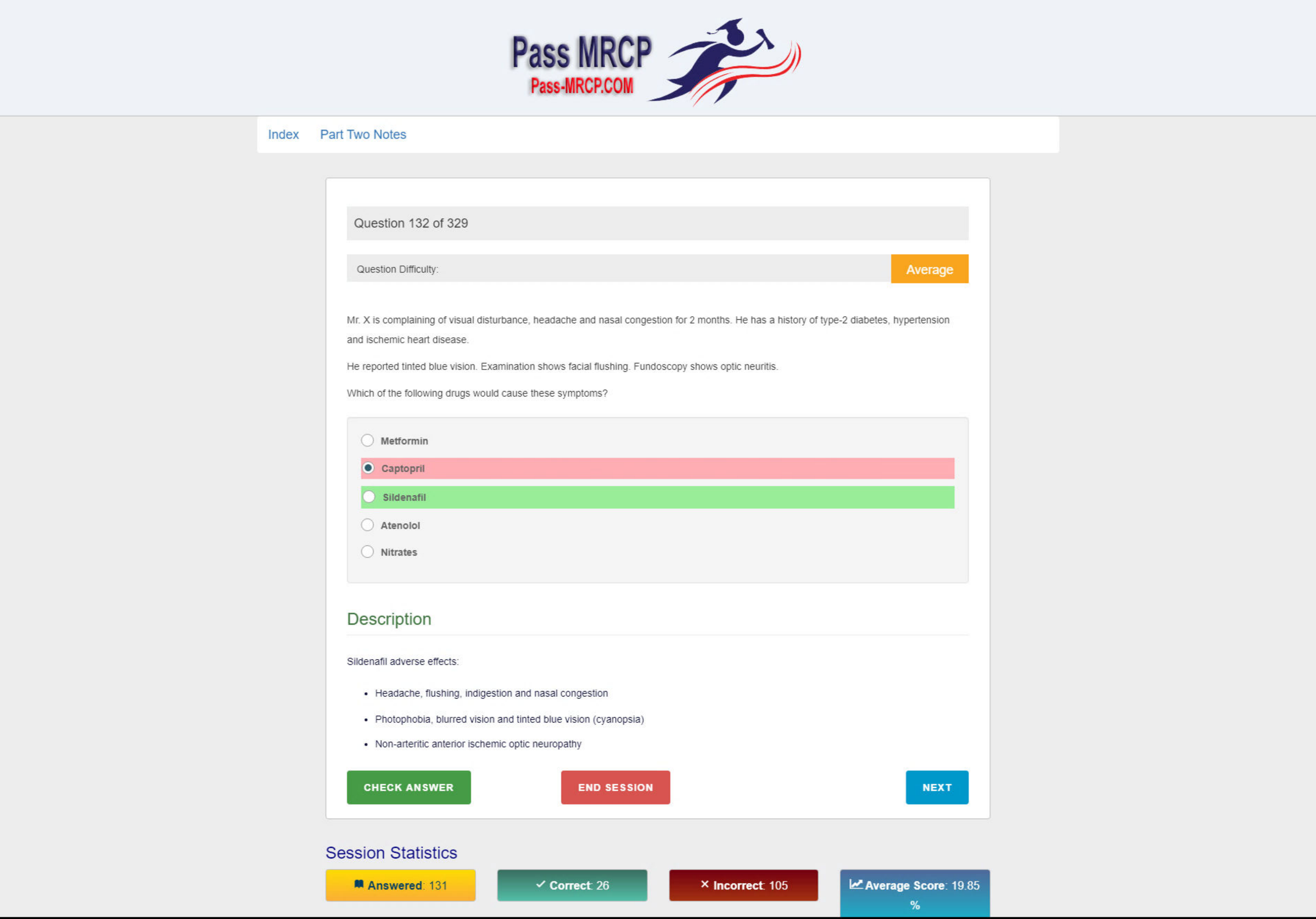
- ○ Syphilis
- ○ Haemophilus ducreyi
- ○ Klebsiella granulomatis
- ○ Herpes simplex virus
- ● Chlamydia trachomatis

## Description

This patient is complaining of Granuloma inguinale. It is a bacterial disease caused by Klebsiella granulomatis. It is manifested by skin destruction and painless nodules which leave painless ulcers. It is found on the shaft of the penis, the labia, or the perineum.

Session Statistics

Answered: 130
✓ Correct: 26
✕ Incorrect: 104
Average Score: 20 %



Question 132 of 329

Question Difficulty: Average

Mr. X is complaining of visual disturbance, headache and nasal congestion for 2 months. He has a history of type-2 diabetes, hypertension and ischemic heart disease.

He reported tinted blue vision. Examination shows facial flushing. Fundoscopy shows optic neuritis.

Which of the following drugs would cause these symptoms?

○ Metformin
● Captopril
○ Sildenafil
○ Atenolol
○ Nitrates

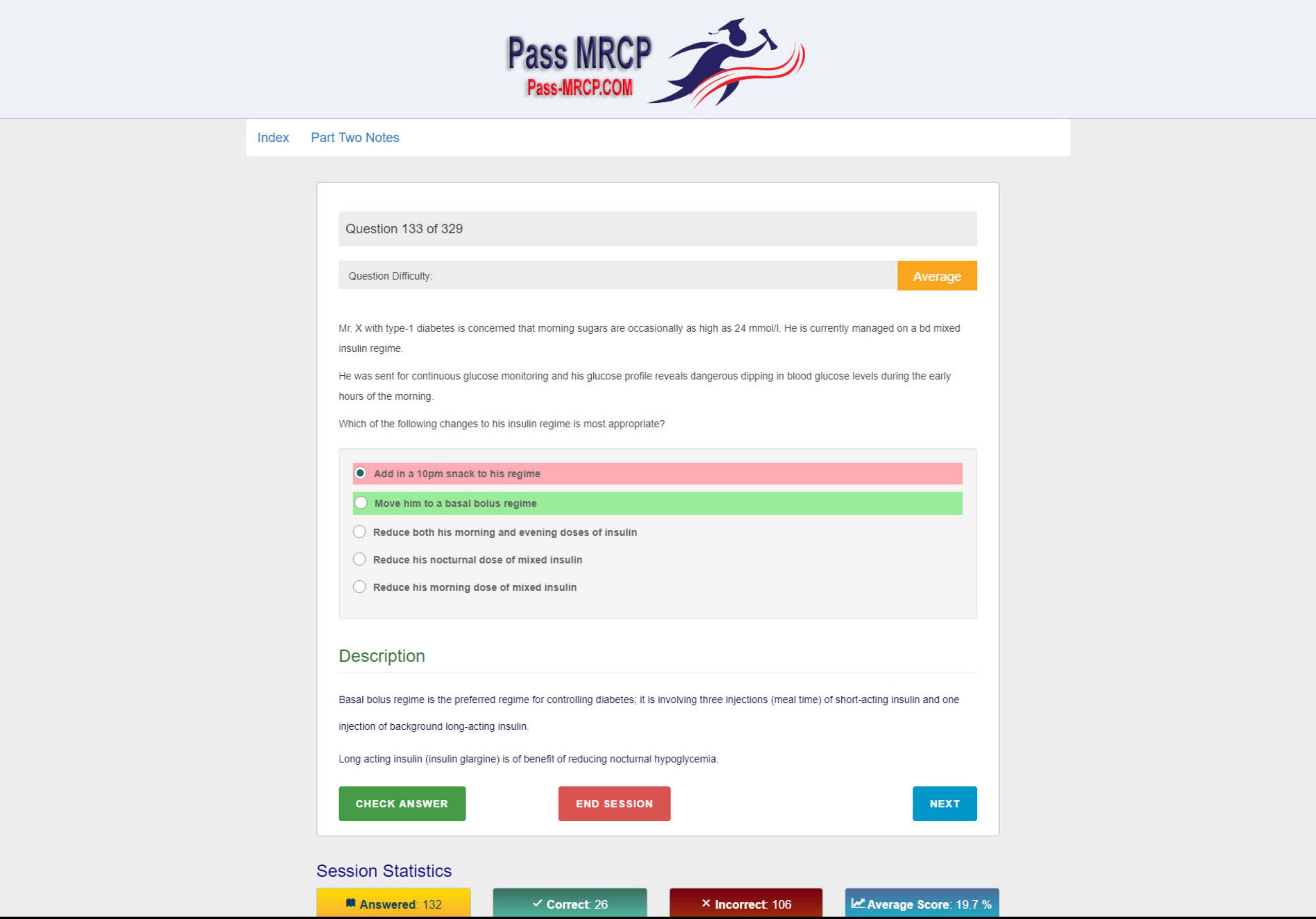
## Description

Sildenafil adverse effects:

- Headache, flushing, indigestion and nasal congestion
- Photophobia, blurred vision and tinted blue vision (cyanopsia)
- Non-arteritic anterior ischemic optic neuropathy

## Session Statistics

Answered: 131
✓ Correct: 26
✕ Incorrect: 105
Average Score: 19.85 %



Question 133 of 329

Question Difficulty: Average

Mr. X with type-1 diabetes is concerned that morning sugars are occasionally as high as 24 mmol/l. He is currently managed on a bd mixed insulin regime.

He was sent for continuous glucose monitoring and his glucose profile reveals dangerous dipping in blood glucose levels during the early hours of the morning.

Which of the following changes to his insulin regime is most appropriate?

- ● **Add in a 10pm snack to his regime**
- ○ **Move him to a basal bolus regime**
- ○ **Reduce both his morning and evening doses of insulin**
- ○ **Reduce his nocturnal dose of mixed insulin**
- ○ **Reduce his morning dose of mixed insulin**

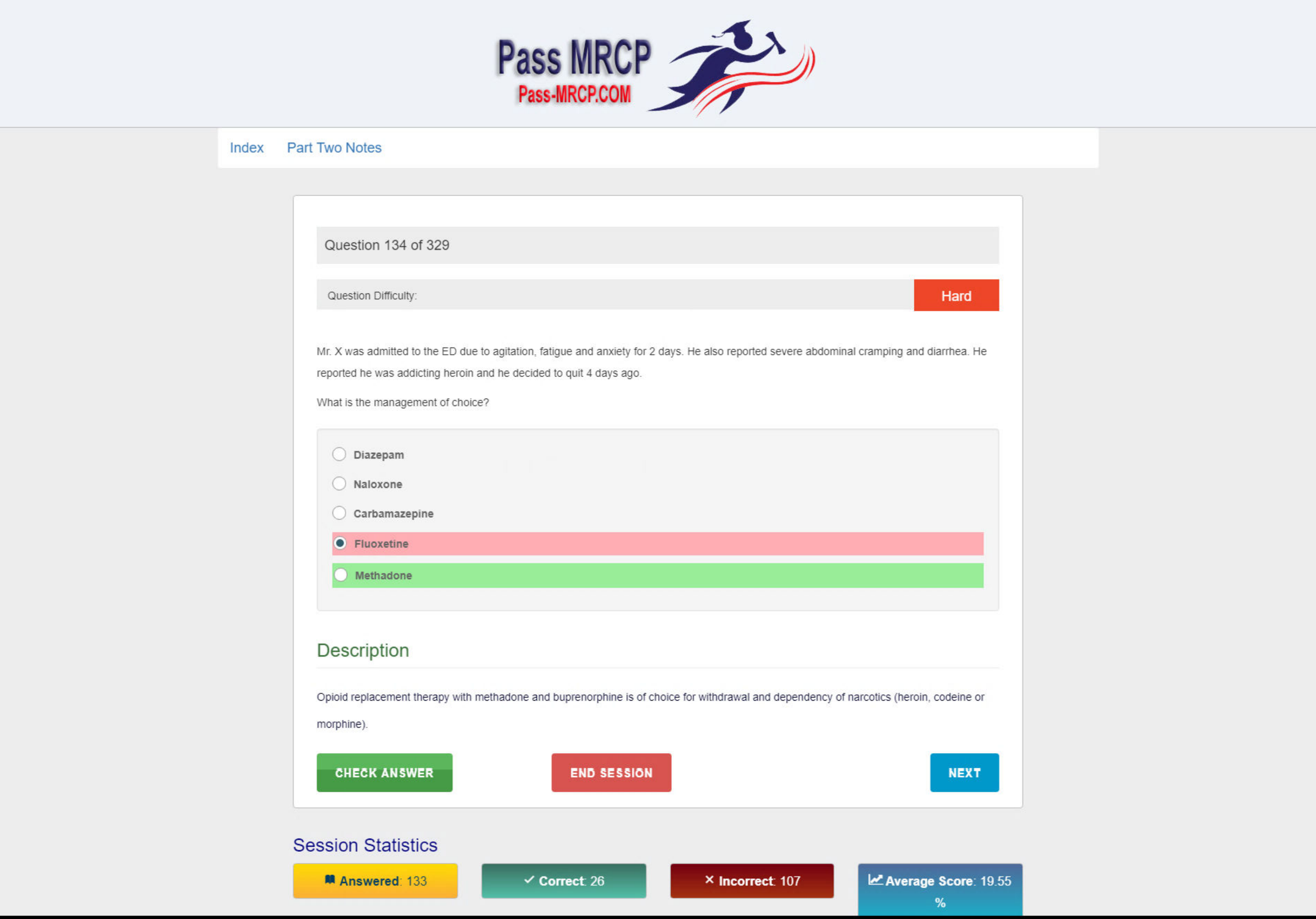
## Description

Basal bolus regime is the preferred regime for controlling diabetes; it is involving three injections (meal time) of short-acting insulin and one injection of background long-acting insulin.

Long acting insulin (insulin glargine) is of benefit of reducing nocturnal hypoglycemia.

Session Statistics

**Answered**: 132
✓ **Correct**: 26
✕ **Incorrect**: 106
**Average Score**: 19.7 %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Question 134 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED due to agitation, fatigue and anxiety for 2 days. He also reported severe abdominal cramping and diarrhea. He reported he was addicting heroin and he decided to quit 4 days ago.

What is the management of choice?

- ○ **Diazepam**
- ○ **Naloxone**
- ○ **Carbamazepine**
- ● **Fluoxetine**
- ○ **Methadone**

## Description

Opioid replacement therapy with methadone and buprenorphine is of choice for withdrawal and dependency of narcotics (heroin, codeine or morphine).

CHECK ANSWER
END SESSION
NEXT

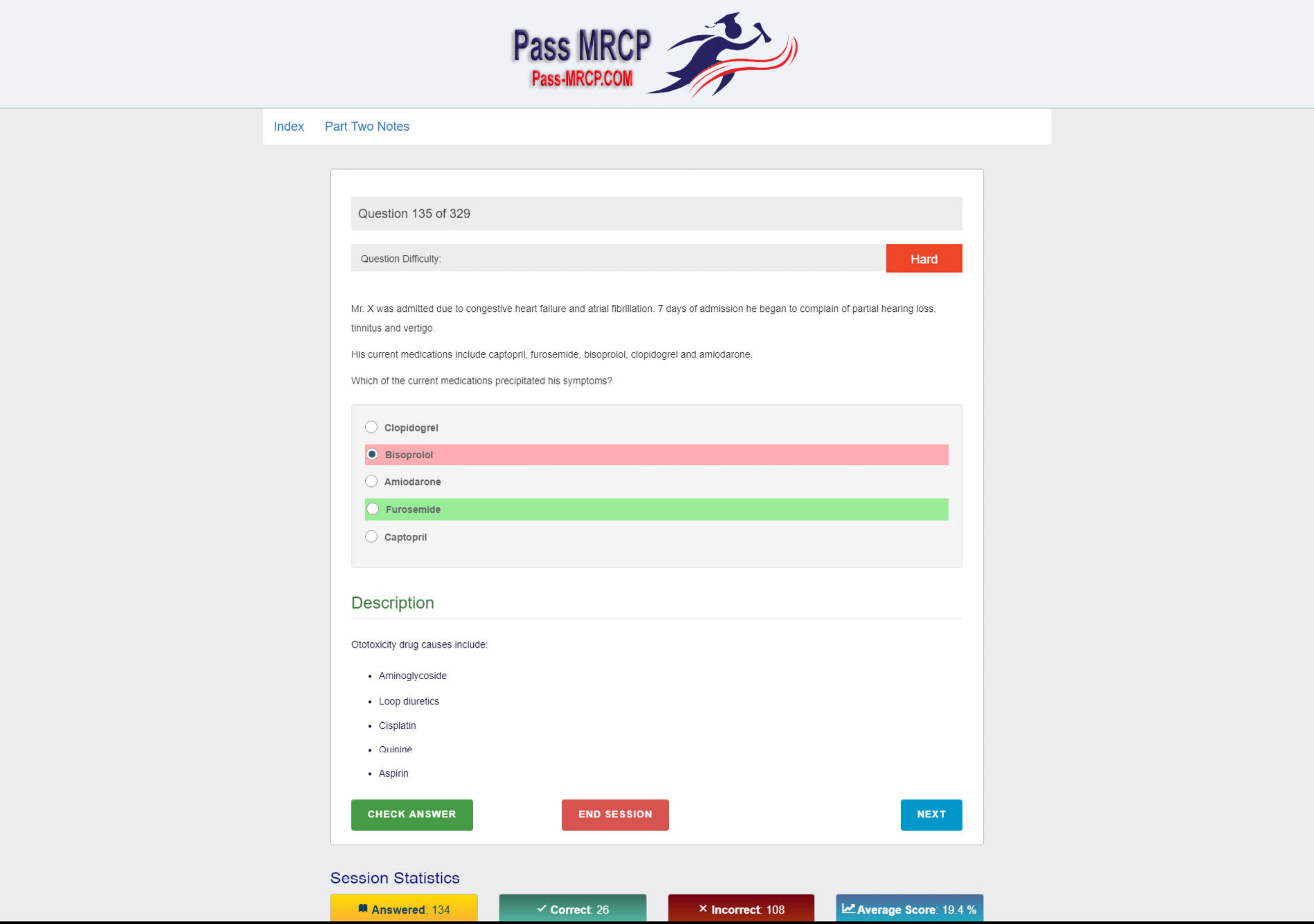
## Session Statistics

**Answered**: 133

✓ **Correct**: 26

✕ **Incorrect**: 107

**Average Score**: 19.55 %



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Question 135 of 329

Question Difficulty: Hard

Mr. X was admitted due to congestive heart failure and atrial fibrillation. 7 days of admission he began to complain of partial hearing loss, tinnitus and vertigo.

His current medications include captopril, furosemide, bisoprolol, clopidogrel and amiodarone.

Which of the current medications precipitated his symptoms?

○ Clopidogrel

● Bisoprolol

○ Amiodarone

○ Furosemide

○ Captopril

## Description

Ototoxicity drug causes include:

- Aminoglycoside
- Loop diuretics
- Cisplatin
- Quinine
- Aspirin

CHECK ANSWER
END SESSION
NEXT

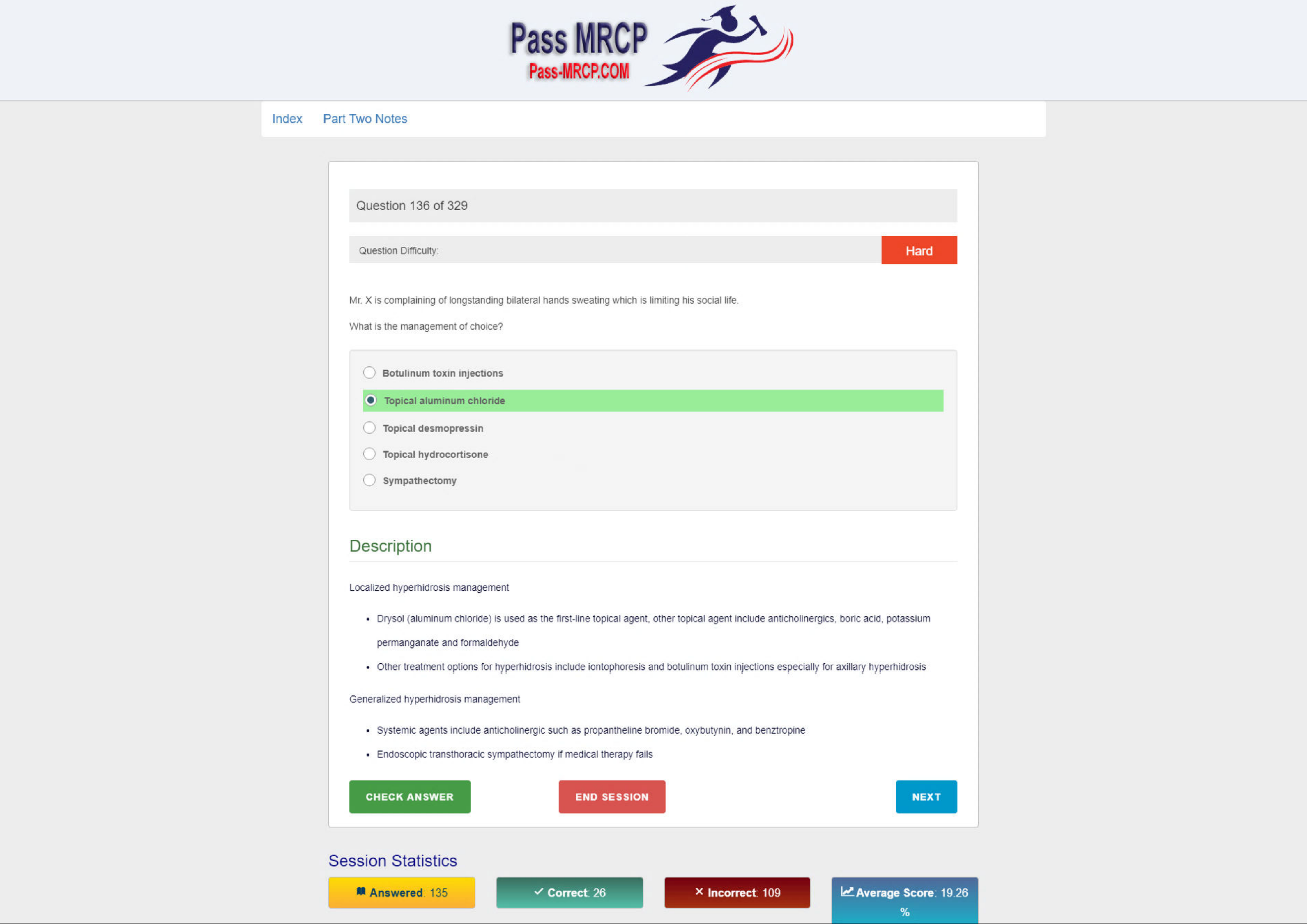
Session Statistics

Answered: 134

✓ Correct: 26

× Incorrect: 108

Average Score: 19.4 %



Question 136 of 329

Question Difficulty: Hard

Mr. X is complaining of longstanding bilateral hands sweating which is limiting his social life.

What is the management of choice?

○ **Botulinum toxin injections**
● **Topical aluminum chloride**
○ **Topical desmopressin**
○ **Topical hydrocortisone**
○ **Sympathectomy**

## Description

Localized hyperhidrosis management

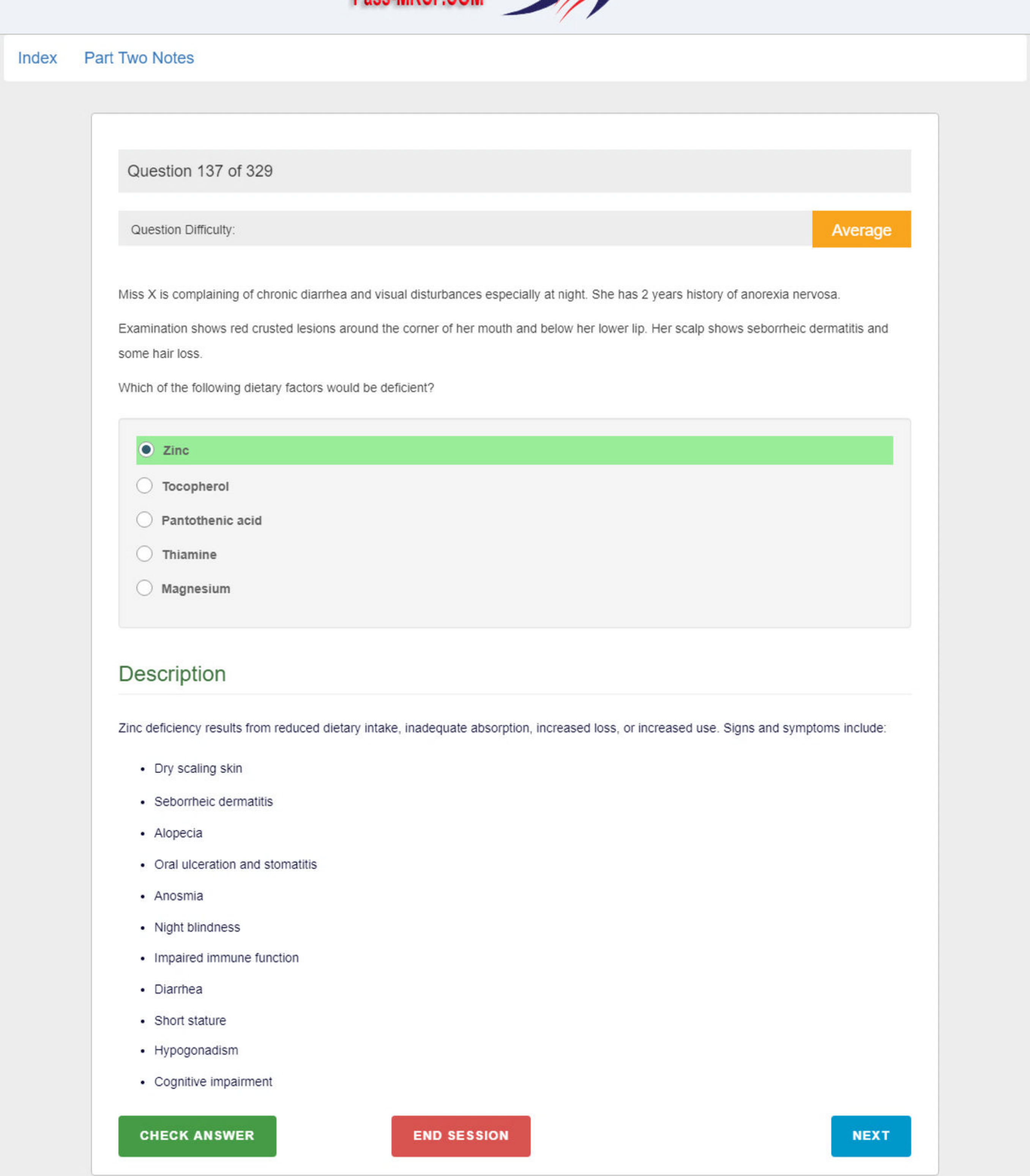
- Drysol (aluminum chloride) is used as the first-line topical agent, other topical agent include anticholinergics, boric acid, potassium permanganate and formaldehyde
- Other treatment options for hyperhidrosis include iontophoresis and botulinum toxin injections especially for axillary hyperhidrosis

Generalized hyperhidrosis management

- Systemic agents include anticholinergic such as propantheline bromide, oxybutynin, and benztropine
- Endoscopic transthoracic sympathectomy if medical therapy fails

## Session Statistics

**Answered**: 135
✓ **Correct**: 26
✕ **Incorrect**: 109
**Average Score**: 19.26 %



Question 137 of 329

Question Difficulty: Average

Miss X is complaining of chronic diarrhea and visual disturbances especially at night. She has 2 years history of anorexia nervosa.

Examination shows red crusted lesions around the corner of her mouth and below her lower lip. Her scalp shows seborrheic dermatitis and some hair loss.

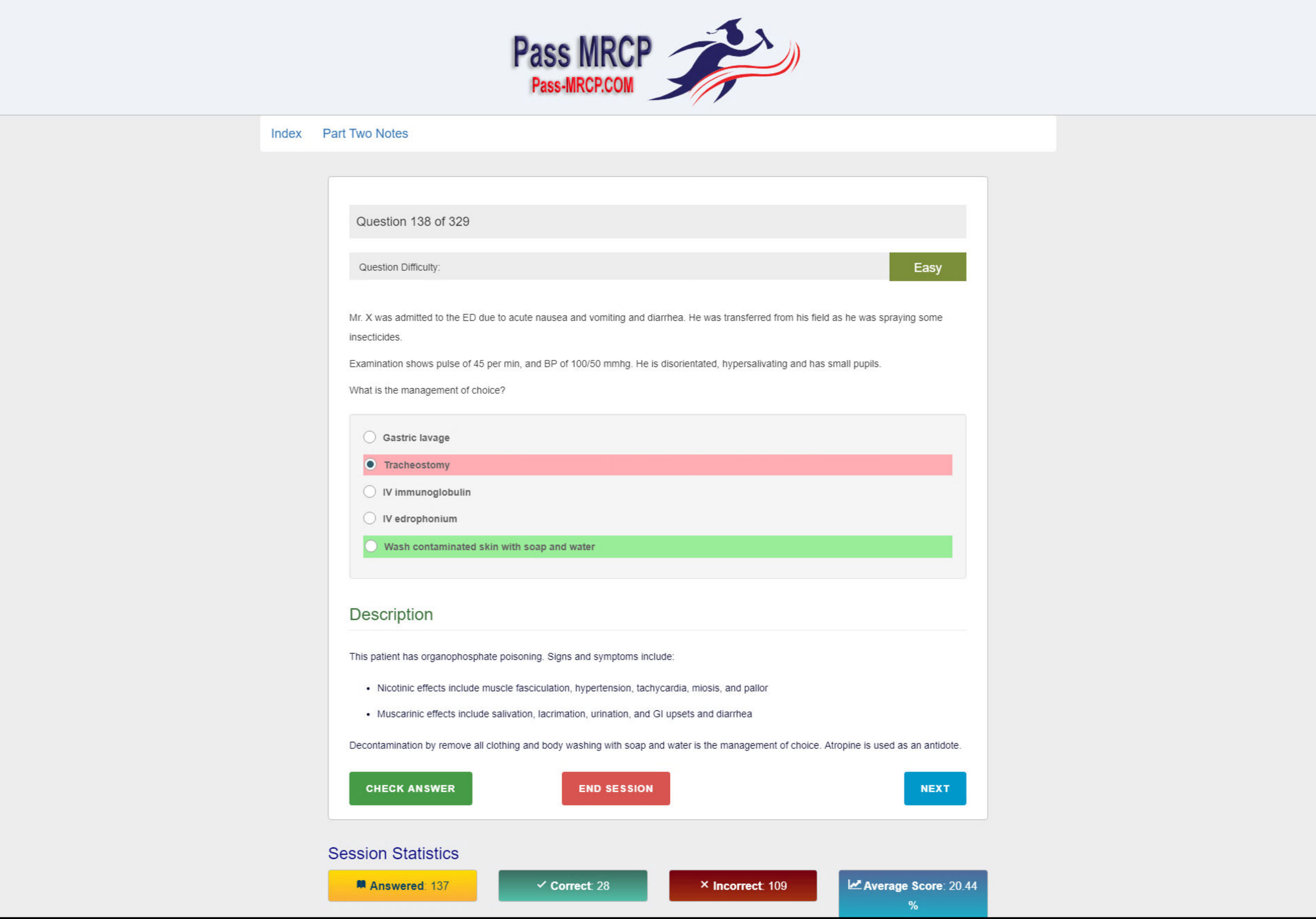
Which of the following dietary factors would be deficient?

● **Zinc**
○ **Tocopherol**
○ **Pantothenic acid**
○ **Thiamine**
○ **Magnesium**

## Description

Zinc deficiency results from reduced dietary intake, inadequate absorption, increased loss, or increased use. Signs and symptoms include:

- Dry scaling skin
- Seborrheic dermatitis
- Alopecia
- Oral ulceration and stomatitis
- Anosmia
- Night blindness
- Impaired immune function
- Diarrhea
- Short stature
- Hypogonadism
- Cognitive impairment



Question 138 of 329

Question Difficulty: Easy

Mr. X was admitted to the ED due to acute nausea and vomiting and diarrhea. He was transferred from his field as he was spraying some insecticides.

Examination shows pulse of 45 per min, and BP of 100/50 mmhg. He is disorientated, hypersalivating and has small pupils.

What is the management of choice?

○ **Gastric lavage**

● **Tracheostomy**

○ **IV immunoglobulin**

○ **IV edrophonium**

○ **Wash contaminated skin with soap and water**

## Description

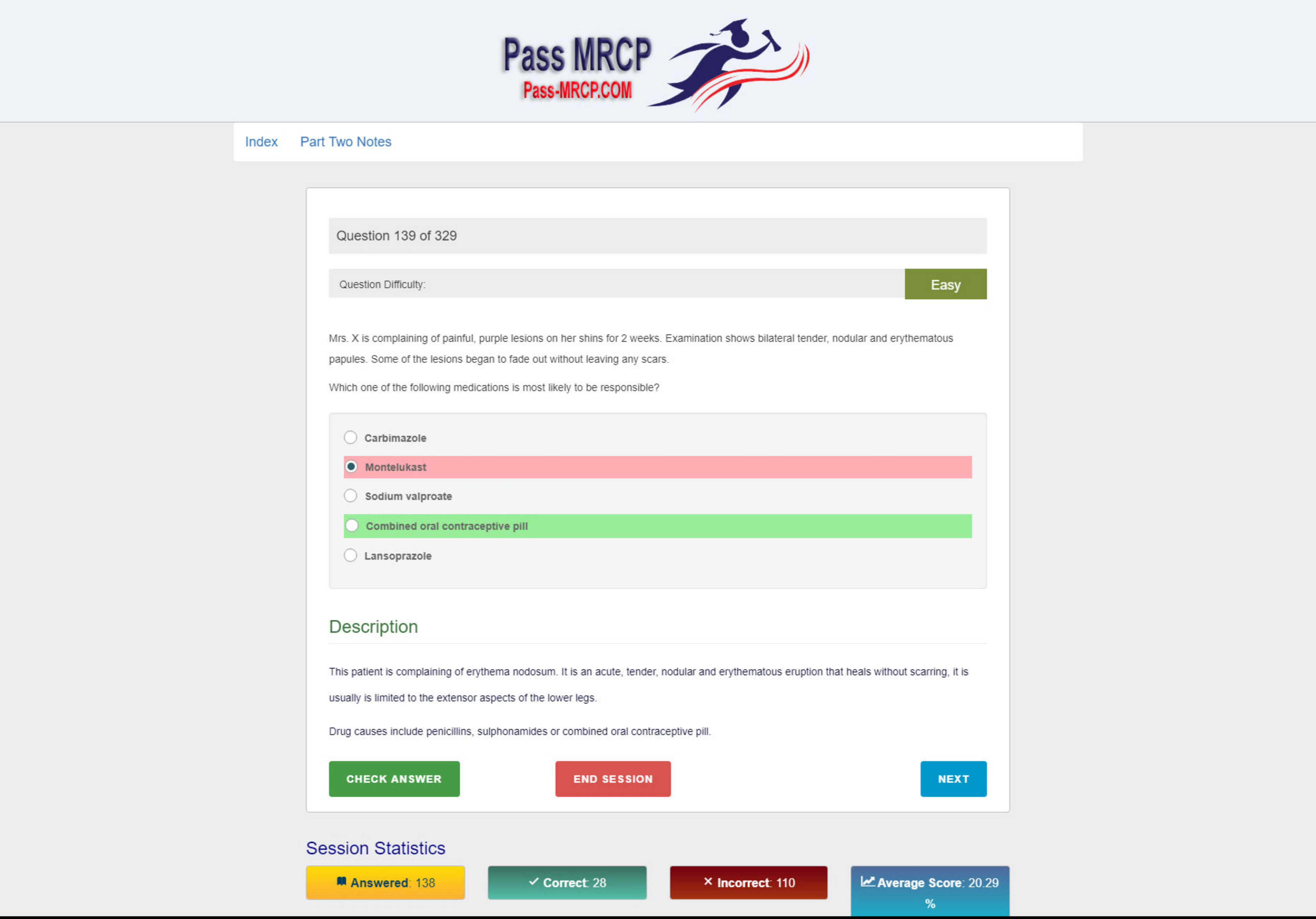
This patient has organophosphate poisoning. Signs and symptoms include:

- Nicotinic effects include muscle fasciculation, hypertension, tachycardia, miosis, and pallor
- Muscarinic effects include salivation, lacrimation, urination, and GI upsets and diarrhea

Decontamination by remove all clothing and body washing with soap and water is the management of choice. Atropine is used as an antidote.

## Session Statistics

**Answered**: 137
✓ **Correct**: 28
✕ **Incorrect**: 109
**Average Score**: 20.44 %



Question 139 of 329

Question Difficulty: Easy

Mrs. X is complaining of painful, purple lesions on her shins for 2 weeks. Examination shows bilateral tender, nodular and erythematous papules. Some of the lesions began to fade out without leaving any scars.

Which one of the following medications is most likely to be responsible?

- ○ Carbimazole
- ● Montelukast
- ○ Sodium valproate
- ○ Combined oral contraceptive pill
- ○ Lansoprazole

## Description

This patient is complaining of erythema nodosum. It is an acute, tender, nodular and erythematous eruption that heals without scarring, it is usually is limited to the extensor aspects of the lower legs.

Drug causes include penicillins, sulphonamides or combined oral contraceptive pill.

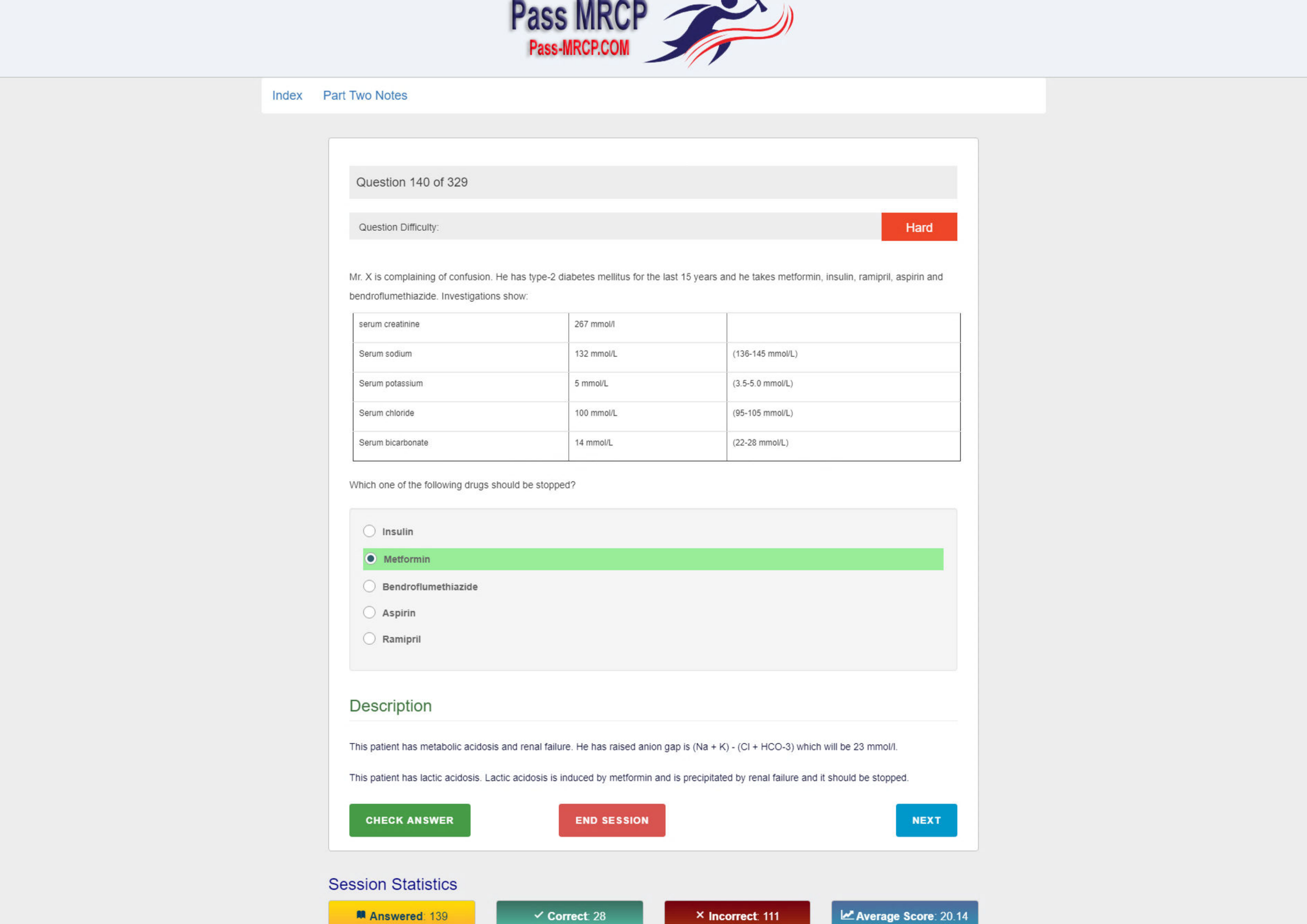
## Session Statistics

**Answered**: 138

✓ **Correct**: 28

× **Incorrect**: 110

**Average Score**: 20.29 %



Question 140 of 329

Question Difficulty: **Hard**

Mr. X is complaining of confusion. He has type-2 diabetes mellitus for the last 15 years and he takes metformin, insulin, ramipril, aspirin and bendroflumethiazide. Investigations show:

| | | |
|---|---|---|
| serum creatinine | 267 mmol/l | |
| Serum sodium | 132 mmol/L | (136-145 mmol/L) |
| Serum potassium | 5 mmol/L | (3.5-5.0 mmol/L) |
| Serum chloride | 100 mmol/L | (95-105 mmol/L) |
| Serum bicarbonate | 14 mmol/L | (22-28 mmol/L) |

Which one of the following drugs should be stopped?

- ○ **Insulin**
- ● **Metformin**
- ○ **Bendroflumethiazide**
- ○ **Aspirin**
- ○ **Ramipril**

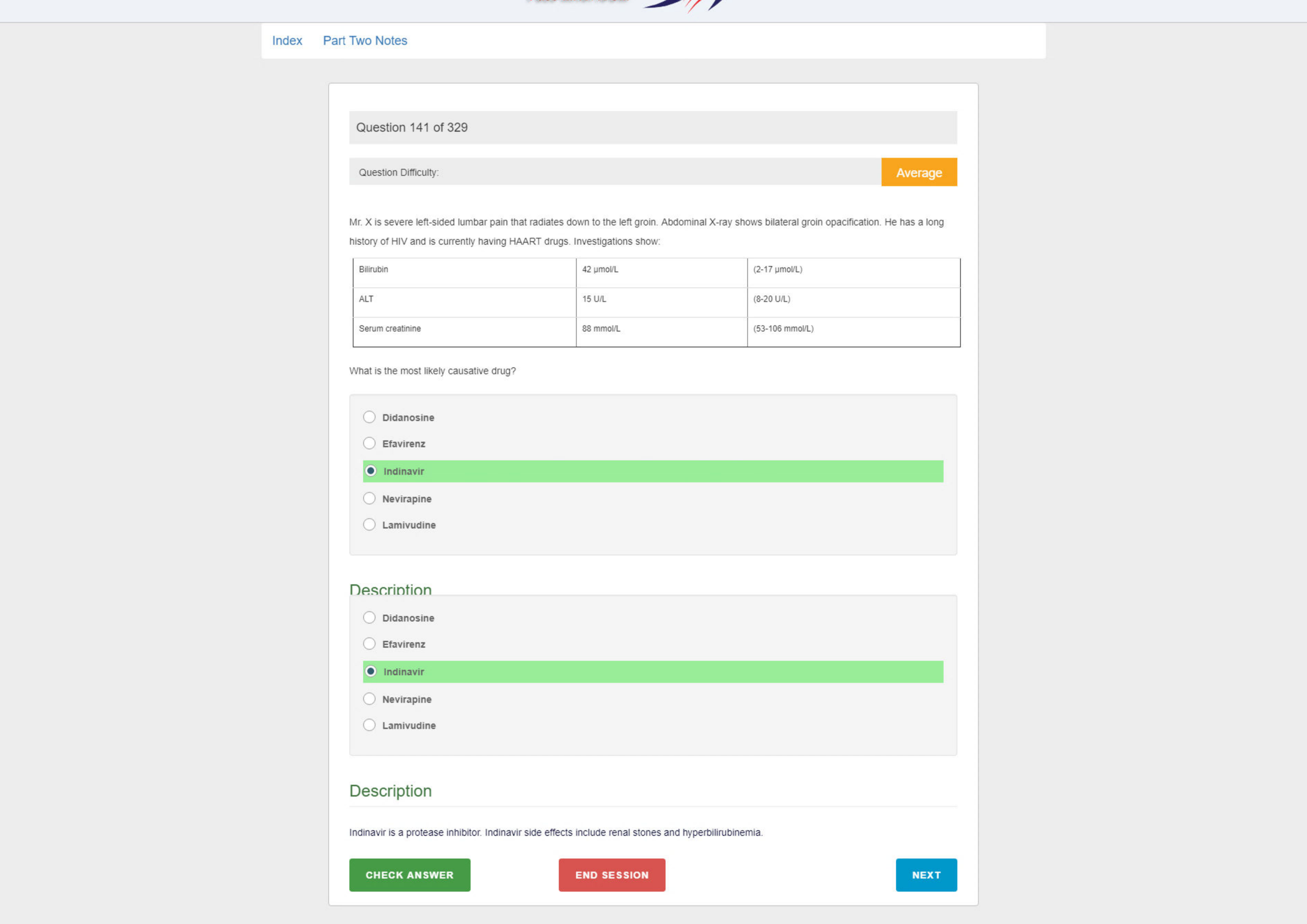
## Description

This patient has metabolic acidosis and renal failure. He has raised anion gap is (Na + K) - (Cl + HCO-3) which will be 23 mmol/l.

This patient has lactic acidosis. Lactic acidosis is induced by metformin and is precipitated by renal failure and it should be stopped.

Session Statistics

**Answered**: 139
**Correct**: 28
**Incorrect**: 111
**Average Score**: 20.14



Question 141 of 329

Question Difficulty: Average

Mr. X is severe left-sided lumbar pain that radiates down to the left groin. Abdominal X-ray shows bilateral groin opacification. He has a long history of HIV and is currently having HAART drugs. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 42 µmol/L | (2-17 µmol/L) |
| ALT | 15 U/L | (8-20 U/L) |
| Serum creatinine | 88 mmol/L | (53-106 mmol/L) |

What is the most likely causative drug?

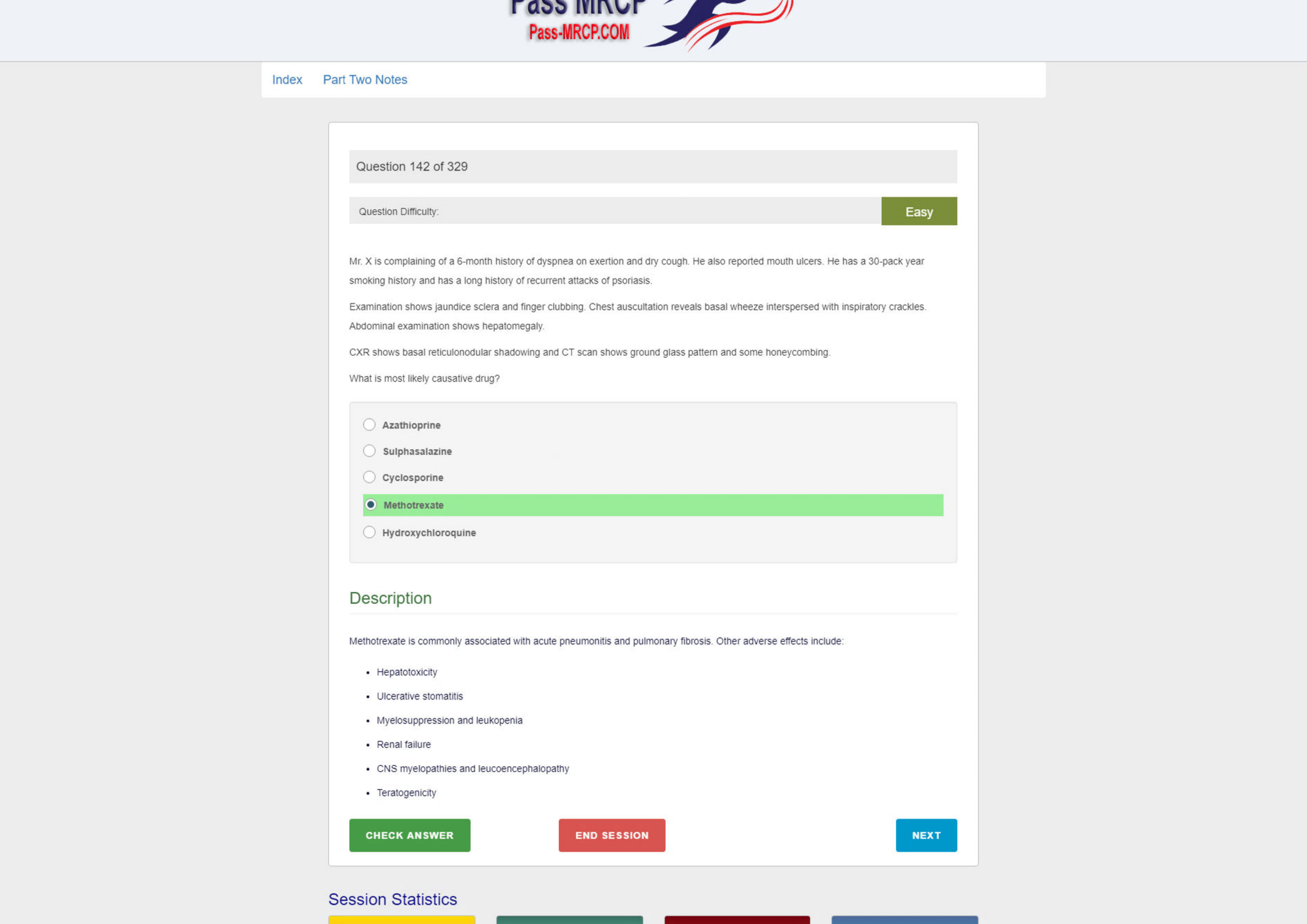
- ○ **Didanosine**
- ○ **Efavirenz**
- ● **Indinavir**
- ○ **Nevirapine**
- ○ **Lamivudine**

Description

- ○ **Didanosine**
- ○ **Efavirenz**
- ● **Indinavir**
- ○ **Nevirapine**
- ○ **Lamivudine**

Description

Indinavir is a protease inhibitor. Indinavir side effects include renal stones and hyperbilirubinemia.



Question 142 of 329

Question Difficulty: Easy

Mr. X is complaining of a 6-month history of dyspnea on exertion and dry cough. He also reported mouth ulcers. He has a 30-pack year smoking history and has a long history of recurrent attacks of psoriasis.

Examination shows jaundice sclera and finger clubbing. Chest auscultation reveals basal wheeze interspersed with inspiratory crackles. Abdominal examination shows hepatomegaly.

CXR shows basal reticulonodular shadowing and CT scan shows ground glass pattern and some honeycombing.

What is most likely causative drug?

○ **Azathioprine**

○ **Sulphasalazine**

○ **Cyclosporine**

● **Methotrexate**

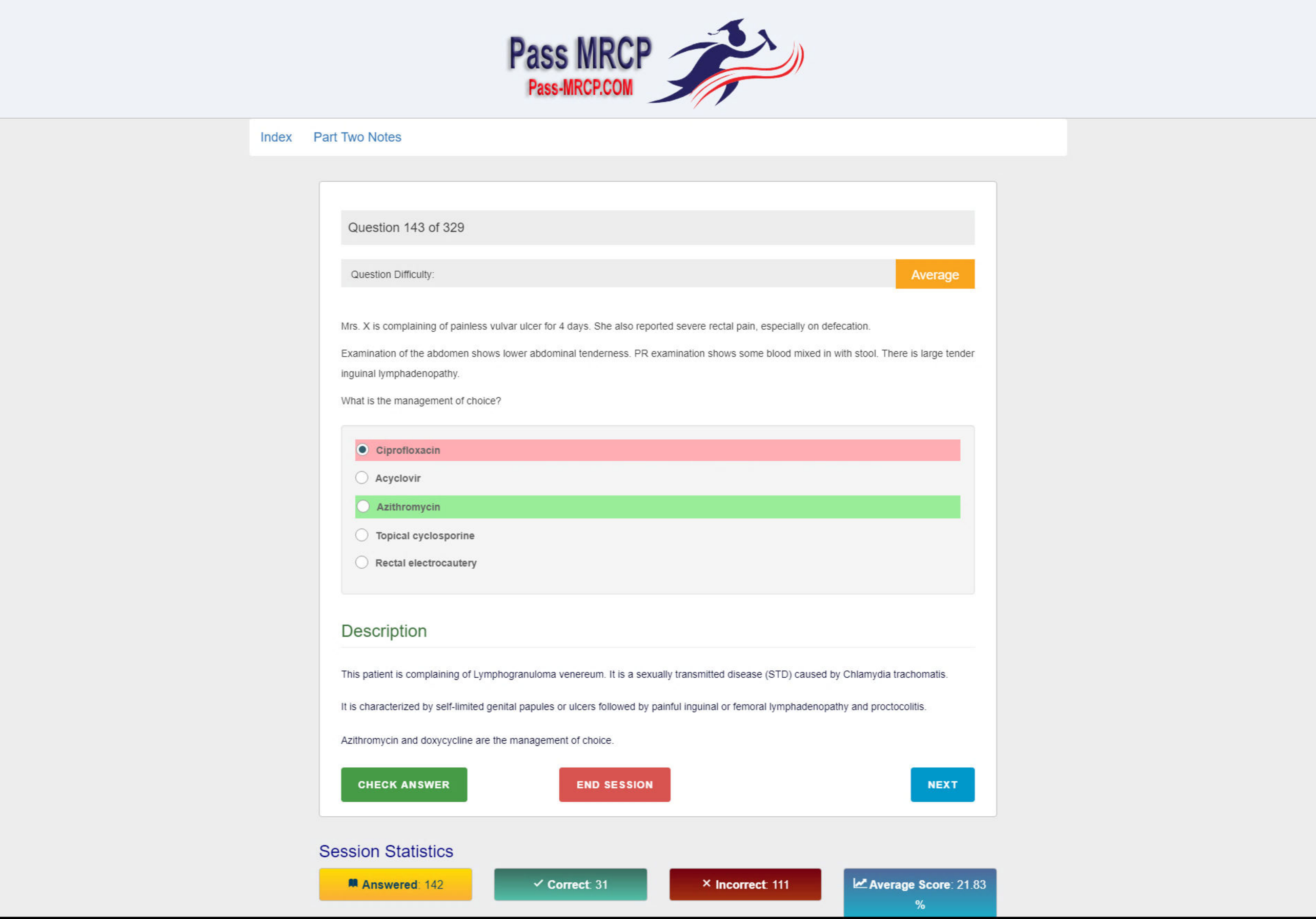
○ **Hydroxychloroquine**

## Description

Methotrexate is commonly associated with acute pneumonitis and pulmonary fibrosis. Other adverse effects include:

- Hepatotoxicity
- Ulcerative stomatitis
- Myelosuppression and leukopenia
- Renal failure
- CNS myelopathies and leucoencephalopathy
- Teratogenicity

Session Statistics



Question 143 of 329

Question Difficulty: Average

Mrs. X is complaining of painless vulvar ulcer for 4 days. She also reported severe rectal pain, especially on defecation.

Examination of the abdomen shows lower abdominal tenderness. PR examination shows some blood mixed in with stool. There is large tender inguinal lymphadenopathy.

What is the management of choice?

- ● Ciprofloxacin
- ○ Acyclovir
- ○ Azithromycin
- ○ Topical cyclosporine
- ○ Rectal electrocautery

## Description

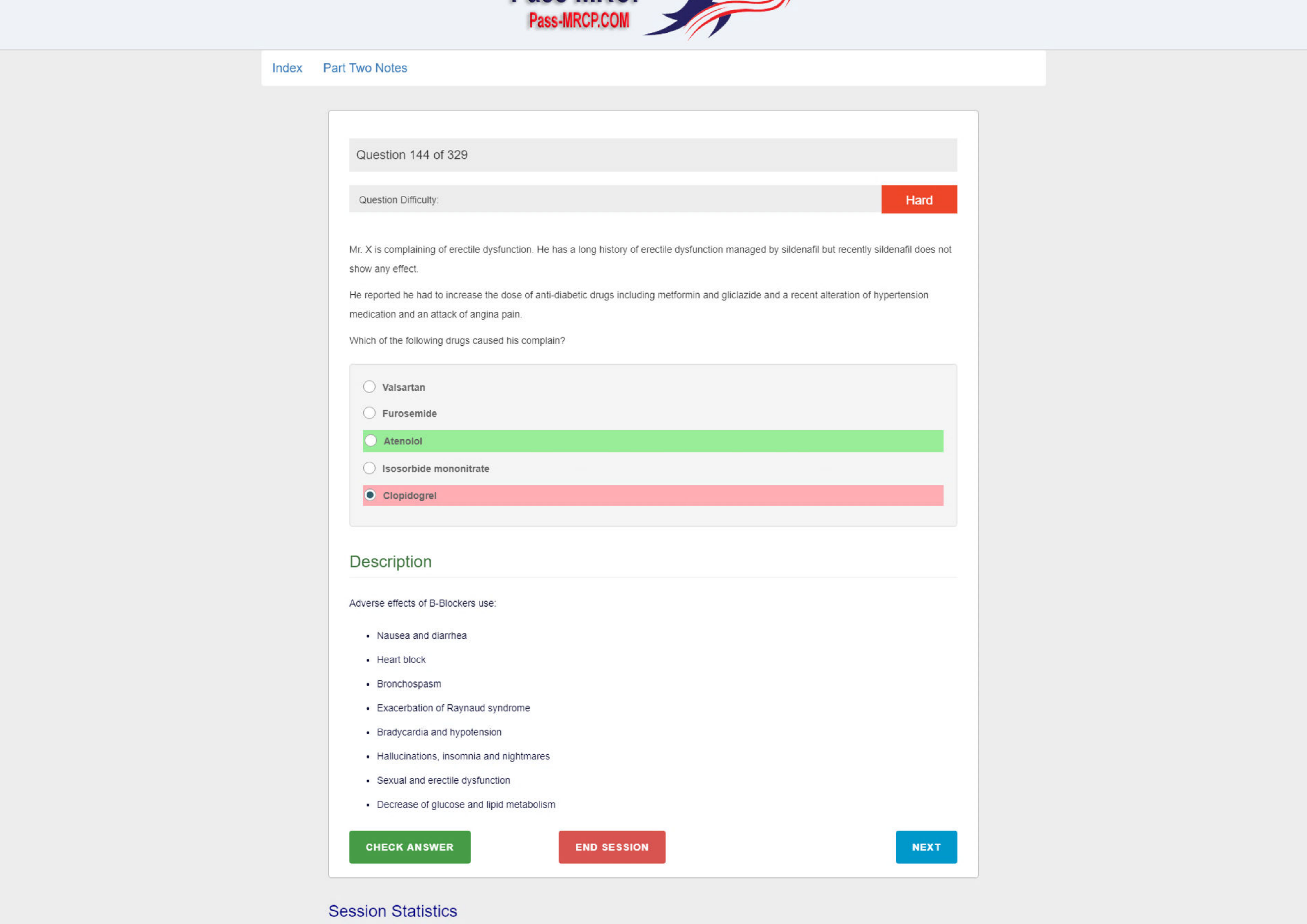
This patient is complaining of Lymphogranuloma venereum. It is a sexually transmitted disease (STD) caused by Chlamydia trachomatis.

It is characterized by self-limited genital papules or ulcers followed by painful inguinal or femoral lymphadenopathy and proctocolitis.

Azithromycin and doxycycline are the management of choice.

Session Statistics

**Answered**: 142
✓ **Correct**: 31
✕ **Incorrect**: 111
**Average Score**: 21.83 %



Question 144 of 329

Question Difficulty: **Hard**

Mr. X is complaining of erectile dysfunction. He has a long history of erectile dysfunction managed by sildenafil but recently sildenafil does not show any effect.

He reported he had to increase the dose of anti-diabetic drugs including metformin and gliclazide and a recent alteration of hypertension medication and an attack of angina pain.

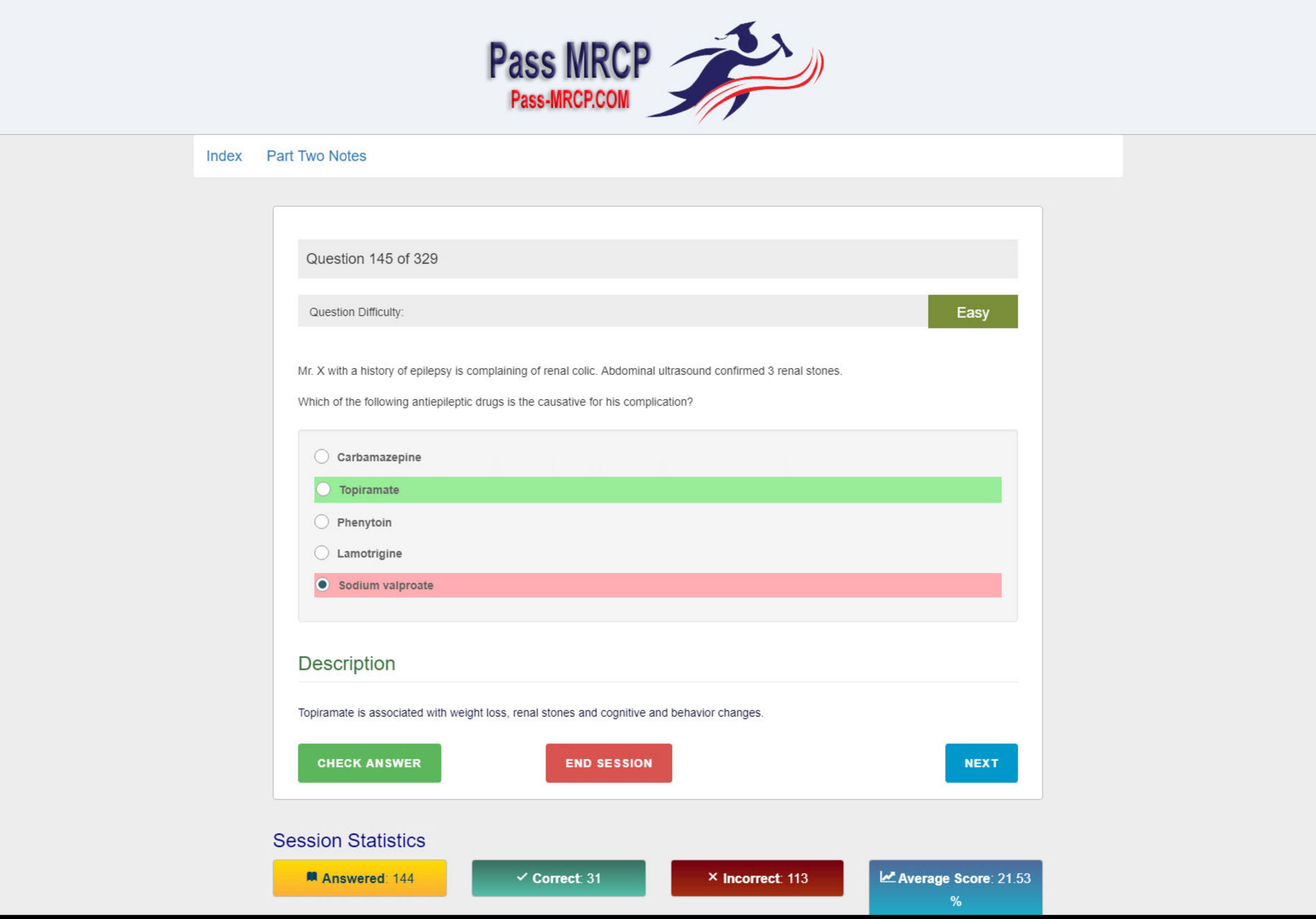
Which of the following drugs caused his complain?

○ **Valsartan**
○ **Furosemide**
○ **Atenolol**
○ **Isosorbide mononitrate**
● **Clopidogrel**

## Description

Adverse effects of B-Blockers use:

- Nausea and diarrhea
- Heart block
- Bronchospasm
- Exacerbation of Raynaud syndrome
- Bradycardia and hypotension
- Hallucinations, insomnia and nightmares
- Sexual and erectile dysfunction
- Decrease of glucose and lipid metabolism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Question 145 of 329

Question Difficulty: Easy

Mr. X with a history of epilepsy is complaining of renal colic. Abdominal ultrasound confirmed 3 renal stones.

Which of the following antiepileptic drugs is the causative for his complication?

○ **Carbamazepine**
○ **Topiramate**
○ **Phenytoin**
○ **Lamotrigine**
● **Sodium valproate**

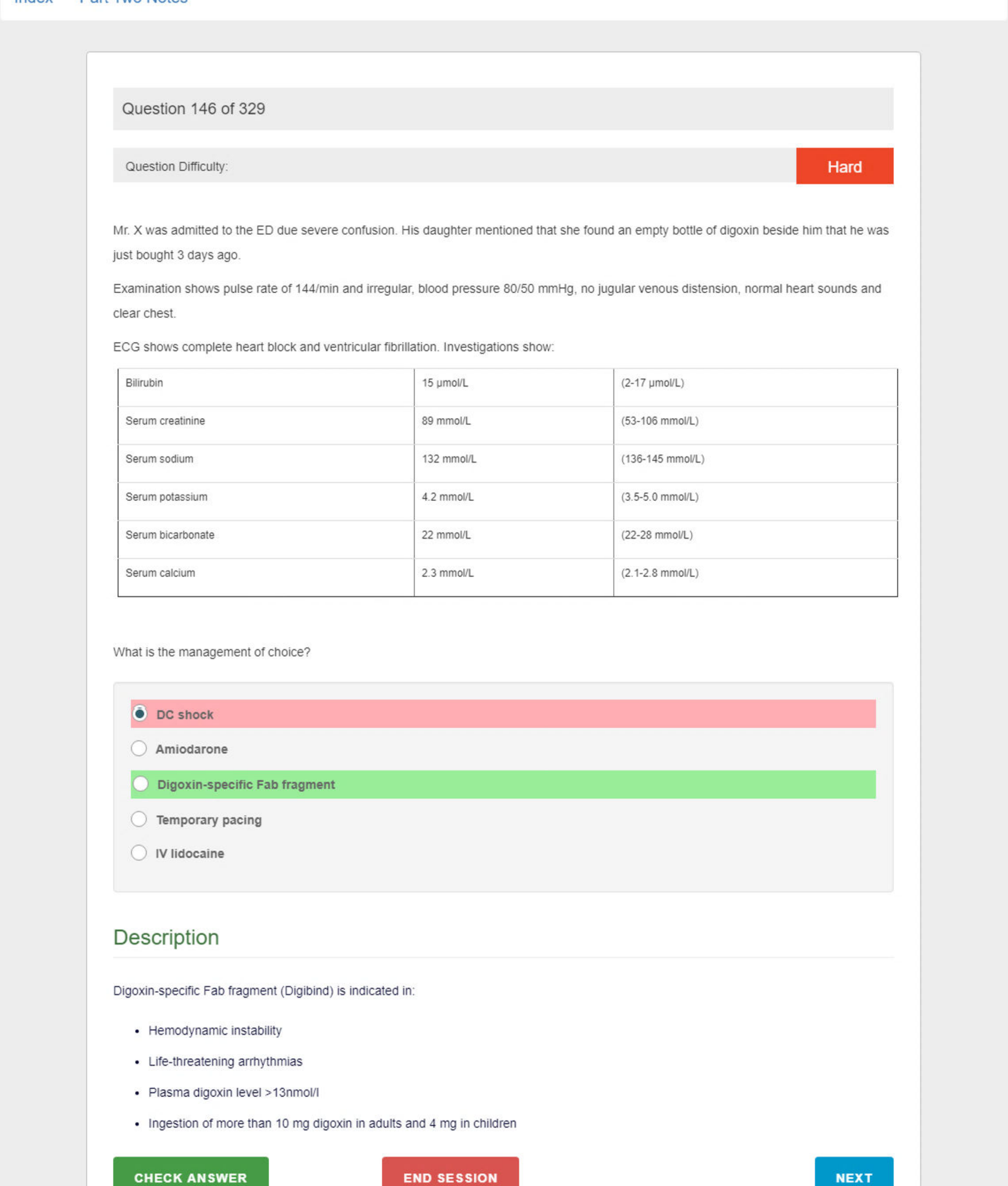
## Description

Topiramate is associated with weight loss, renal stones and cognitive and behavior changes.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

**Answered**: 144
✓ **Correct**: 31
× **Incorrect**: 113
**Average Score**: 21.53 %



Question 146 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED due severe confusion. His daughter mentioned that she found an empty bottle of digoxin beside him that he was just bought 3 days ago.

Examination shows pulse rate of 144/min and irregular, blood pressure 80/50 mmHg, no jugular venous distension, normal heart sounds and clear chest.

ECG shows complete heart block and ventricular fibrillation. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 µmol/L | (2-17 µmol/L) |
| Serum creatinine | 89 mmol/L | (53-106 mmol/L) |
| Serum sodium | 132 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 22 mmol/L | (22-28 mmol/L) |
| Serum calcium | 2.3 mmol/L | (2.1-2.8 mmol/L) |

What is the management of choice?

● **DC shock**

○ **Amiodarone**

○ **Digoxin-specific Fab fragment**

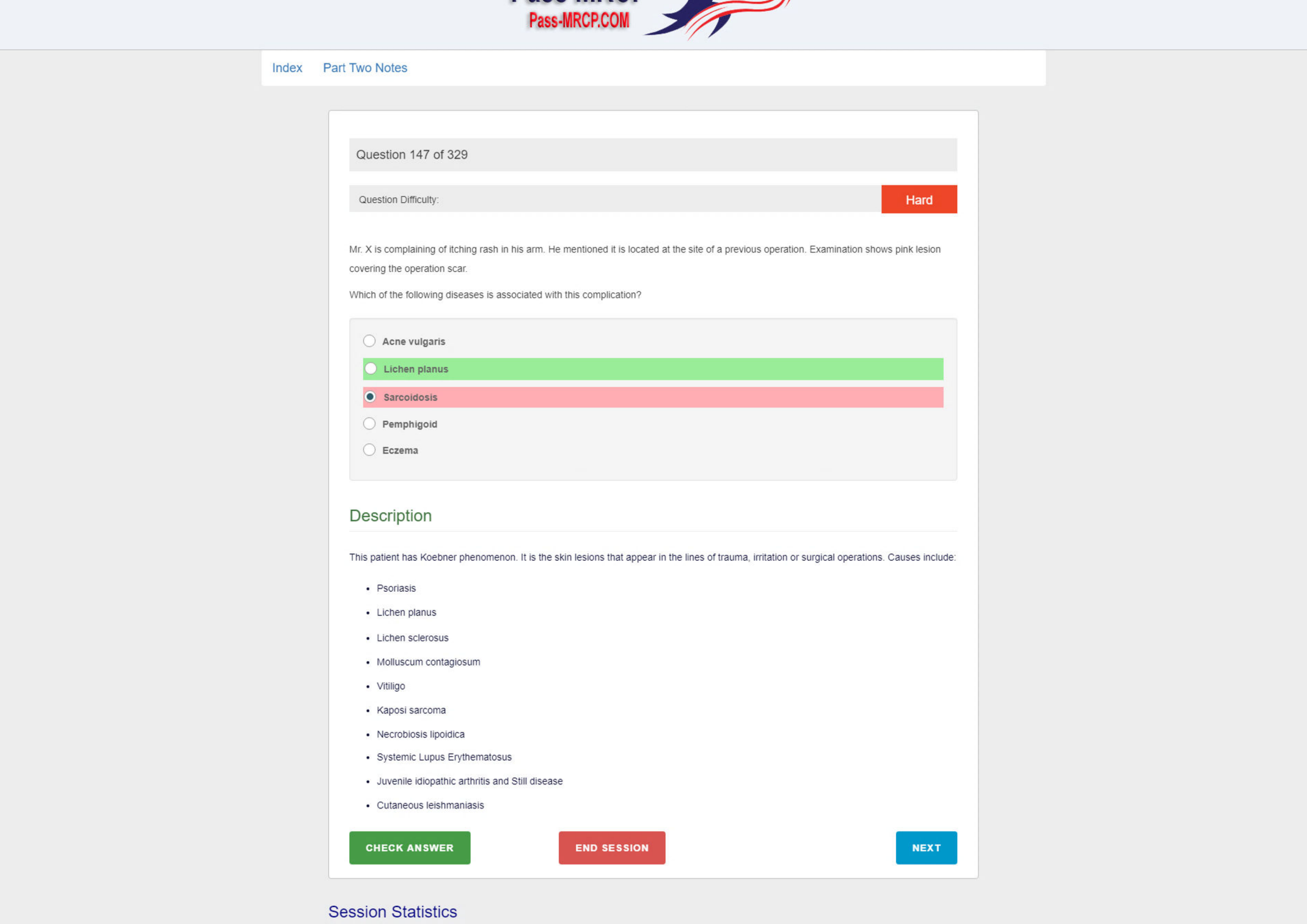
○ **Temporary pacing**

○ **IV lidocaine**

## Description

Digoxin-specific Fab fragment (Digibind) is indicated in:

- Hemodynamic instability
- Life-threatening arrhythmias
- Plasma digoxin level >13nmol/l
- Ingestion of more than 10 mg digoxin in adults and 4 mg in children



Question 147 of 329

Question Difficulty: Hard

Mr. X is complaining of itching rash in his arm. He mentioned it is located at the site of a previous operation. Examination shows pink lesion covering the operation scar.

Which of the following diseases is associated with this complication?

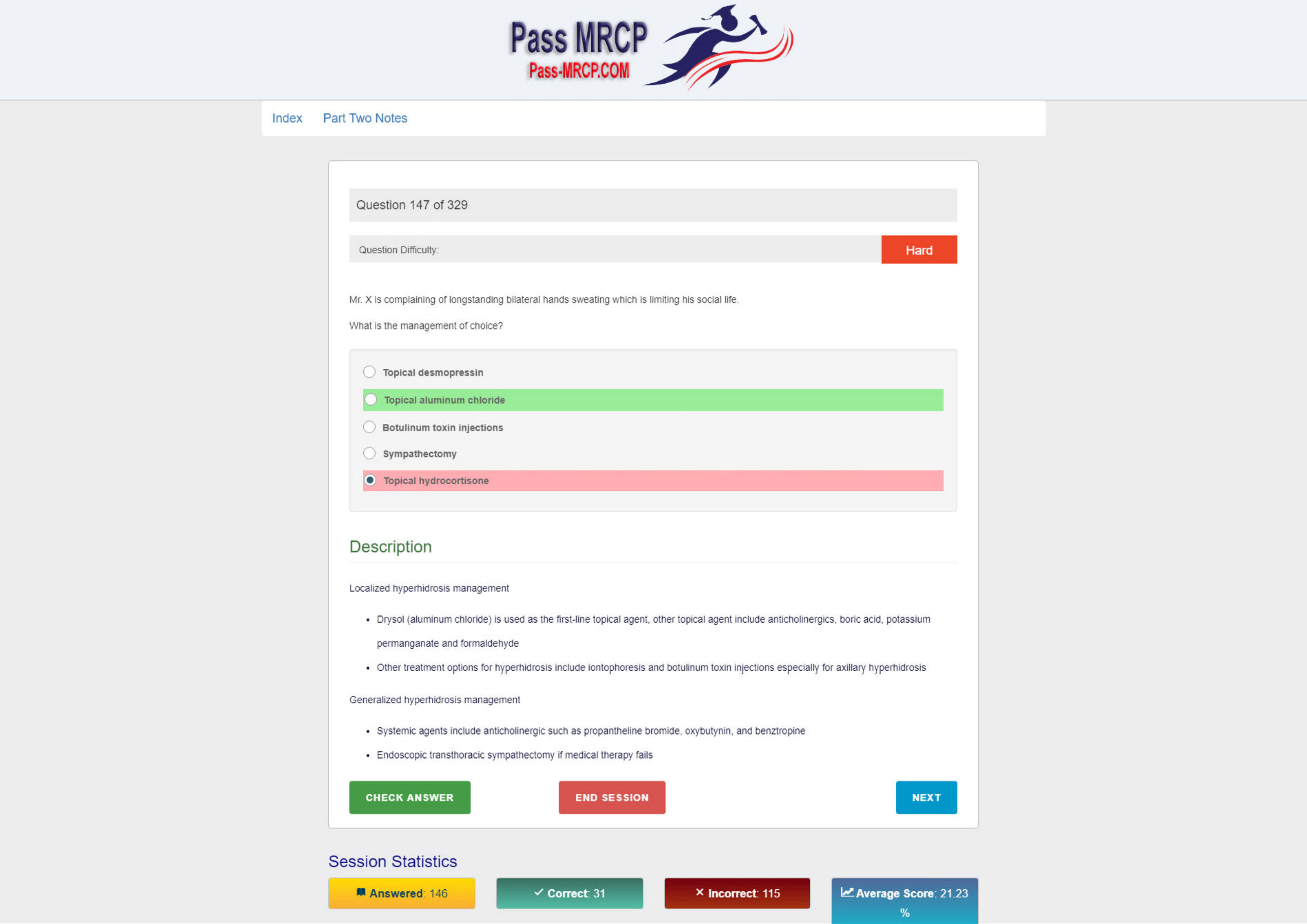
○ **Acne vulgaris**
○ **Lichen planus**
● **Sarcoidosis**
○ **Pemphigoid**
○ **Eczema**

## Description

This patient has Koebner phenomenon. It is the skin lesions that appear in the lines of trauma, irritation or surgical operations. Causes include:

- Psoriasis
- Lichen planus
- Lichen sclerosus
- Molluscum contagiosum
- Vitiligo
- Kaposi sarcoma
- Necrobiosis lipoidica
- Systemic Lupus Erythematosus
- Juvenile idiopathic arthritis and Still disease
- Cutaneous leishmaniasis

Session Statistics



Question 147 of 329

Question Difficulty: Hard

Mr. X is complaining of longstanding bilateral hands sweating which is limiting his social life.

What is the management of choice?

○ Topical desmopressin

○ Topical aluminum chloride

○ Botulinum toxin injections

○ Sympathectomy

● Topical hydrocortisone

## Description

Localized hyperhidrosis management

- Drysol (aluminum chloride) is used as the first-line topical agent, other topical agent include anticholinergics, boric acid, potassium permanganate and formaldehyde
- Other treatment options for hyperhidrosis include iontophoresis and botulinum toxin injections especially for axillary hyperhidrosis

Generalized hyperhidrosis management

- Systemic agents include anticholinergic such as propantheline bromide, oxybutynin, and benztropine
- Endoscopic transthoracic sympathectomy if medical therapy fails

Session Statistics

Answered: 146

✓ Correct: 31

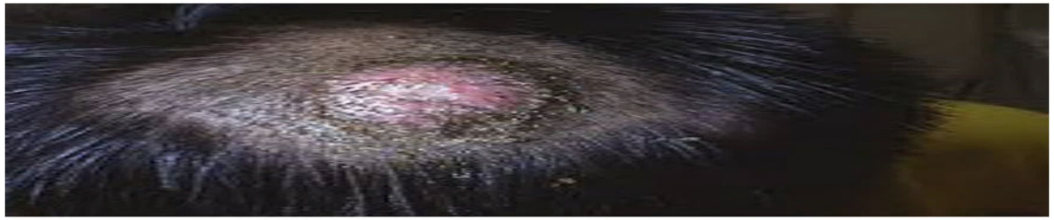
× Incorrect: 115

Average Score: 21.23 %

Question 148 of 329

Question Difficulty: Average

6 years old child is complaining of localized area of hair loss. Examination shows boggy swelling over the scalp with multiple pustules surmounting the swelling as in the image. Skin scraping shows Trichophyton tonsurans infection.



What is the most likely diagnosis?

- ● Seborrheic dermatitis
- ○ Kerion
- ○ Impetigo
- ○ Folliculitis
- ○ Favus

What is the most likely diagnosis?

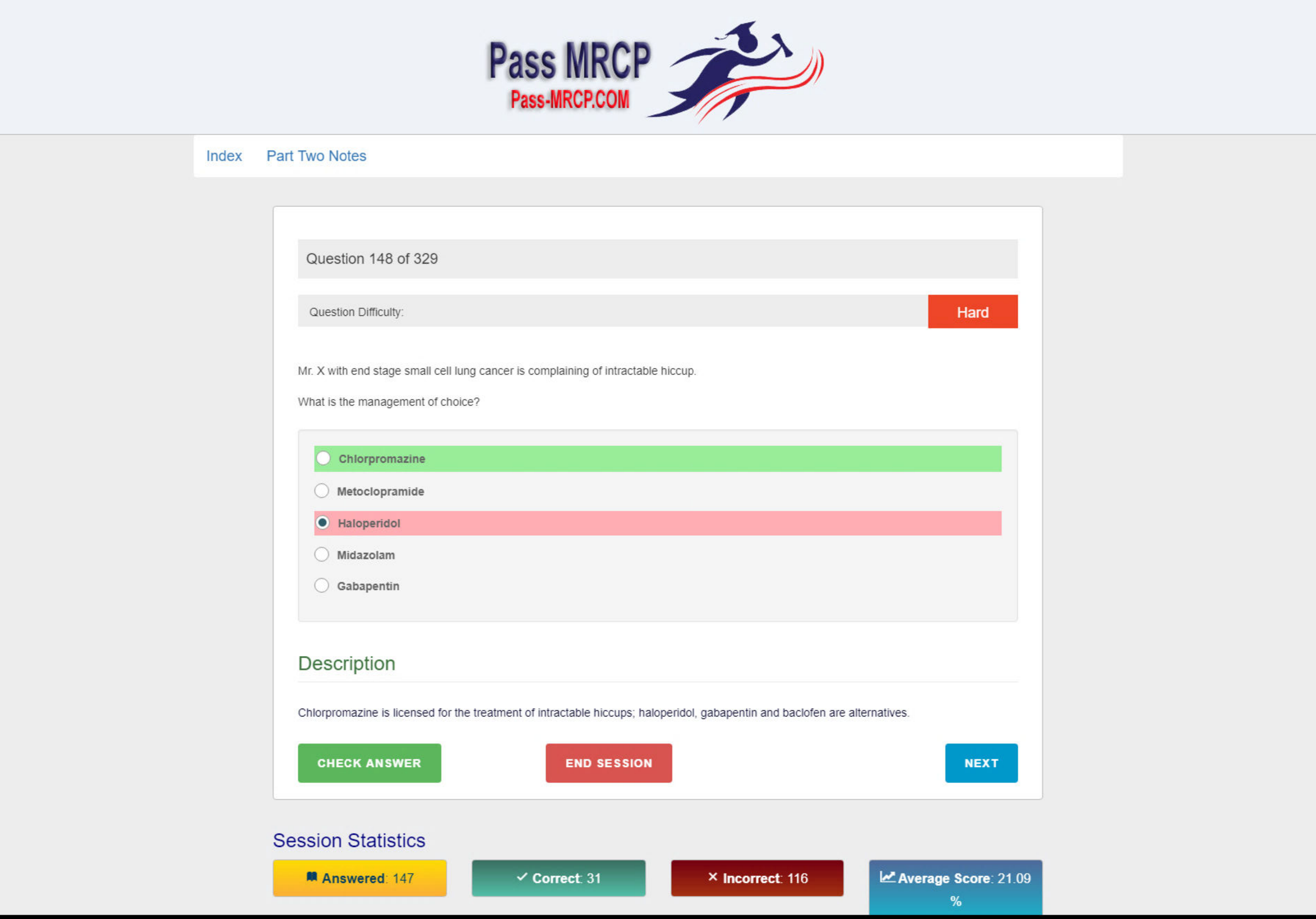
- ● Seborrheic dermatitis
- ○ Kerion
- ○ Impetigo
- ○ Folliculitis
- ○ Favus

## Description

This patient is complaining of Kerion as a complication of Tinea capitis. Tinea capitis is a disease caused by superficial fungal infection of the scalp skin, eyebrows and eyelashes. The most common organisms are Trichophyton tonsurans and Microsporum canis (from cats or dogs).

Kerion is caused by secondary bacterial infection. It is manifested by inflammatory swelling of scalp skin with numerous pustules.

CHECK ANSWER END SESSION NEXT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Question 148 of 329

Question Difficulty: Hard

Mr. X with end stage small cell lung cancer is complaining of intractable hiccup.

What is the management of choice?

- ○ Chlorpromazine
- ○ Metoclopramide
- ● Haloperidol
- ○ Midazolam
- ○ Gabapentin

## Description

Chlorpromazine is licensed for the treatment of intractable hiccups; haloperidol, gabapentin and baclofen are alternatives.

CHECK ANSWER
END SESSION
NEXT

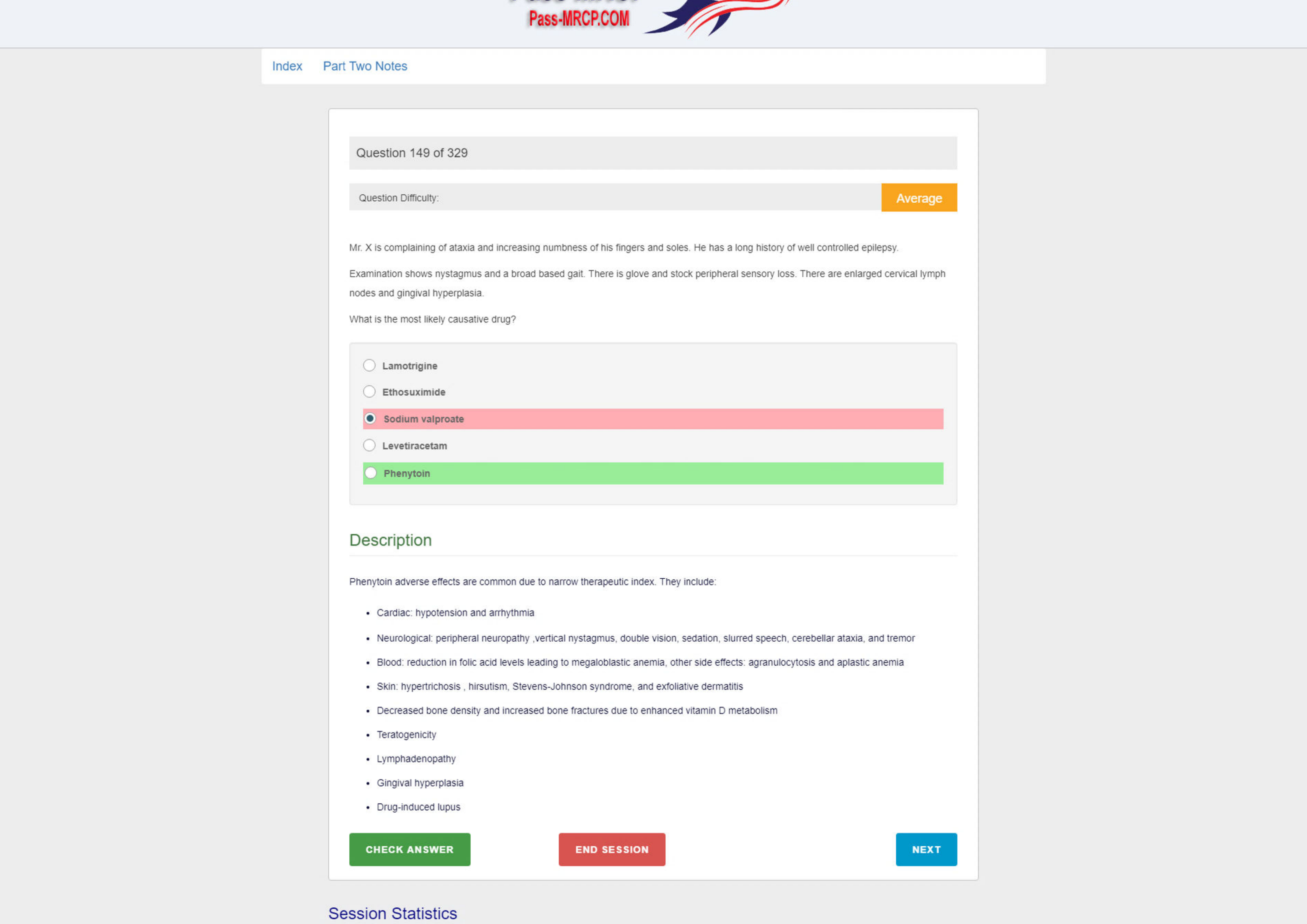
Session Statistics

**Answered**: 147

✓ **Correct**: 31

× **Incorrect**: 116

**Average Score**: 21.09 %



Question 149 of 329

Question Difficulty: **Average**

Mr. X is complaining of ataxia and increasing numbness of his fingers and soles. He has a long history of well controlled epilepsy.

Examination shows nystagmus and a broad based gait. There is glove and stock peripheral sensory loss. There are enlarged cervical lymph nodes and gingival hyperplasia.

What is the most likely causative drug?

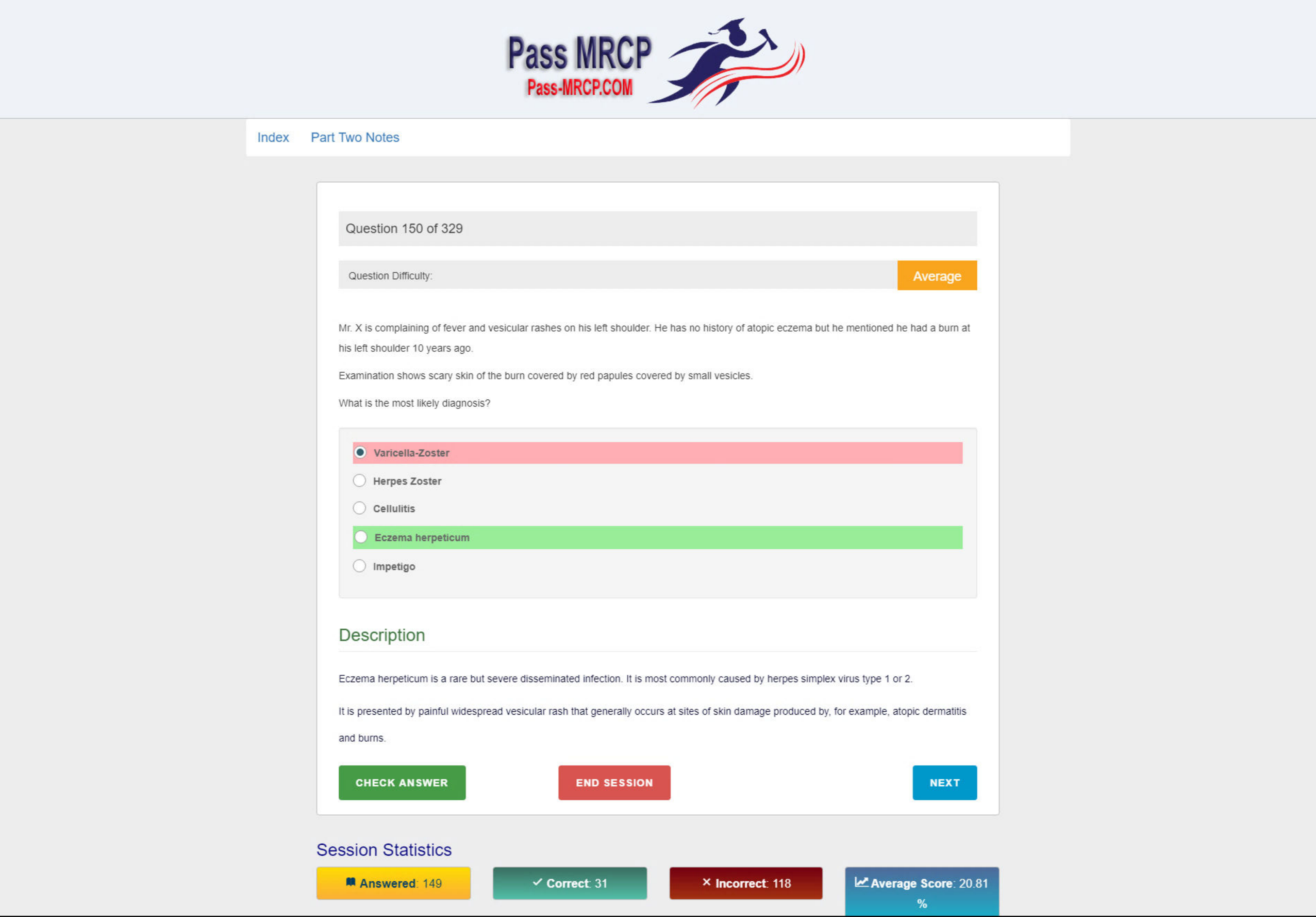
○ **Lamotrigine**
○ **Ethosuximide**
● **Sodium valproate**
○ **Levetiracetam**
○ **Phenytoin**

## Description

Phenytoin adverse effects are common due to narrow therapeutic index. They include:

- Cardiac: hypotension and arrhythmia
- Neurological: peripheral neuropathy ,vertical nystagmus, double vision, sedation, slurred speech, cerebellar ataxia, and tremor
- Blood: reduction in folic acid levels leading to megaloblastic anemia, other side effects: agranulocytosis and aplastic anemia
- Skin: hypertrichosis , hirsutism, Stevens-Johnson syndrome, and exfoliative dermatitis
- Decreased bone density and increased bone fractures due to enhanced vitamin D metabolism
- Teratogenicity
- Lymphadenopathy
- Gingival hyperplasia
- Drug-induced lupus

Session Statistics



Question 150 of 329

Question Difficulty: Average

Mr. X is complaining of fever and vesicular rashes on his left shoulder. He has no history of atopic eczema but he mentioned he had a burn at his left shoulder 10 years ago.

Examination shows scary skin of the burn covered by red papules covered by small vesicles.

What is the most likely diagnosis?

- ● Varicella-Zoster
- ○ Herpes Zoster
- ○ Cellulitis
- ○ Eczema herpeticum
- ○ Impetigo

## Description

Eczema herpeticum is a rare but severe disseminated infection. It is most commonly caused by herpes simplex virus type 1 or 2.

It is presented by painful widespread vesicular rash that generally occurs at sites of skin damage produced by, for example, atopic dermatitis and burns.

## Session Statistics

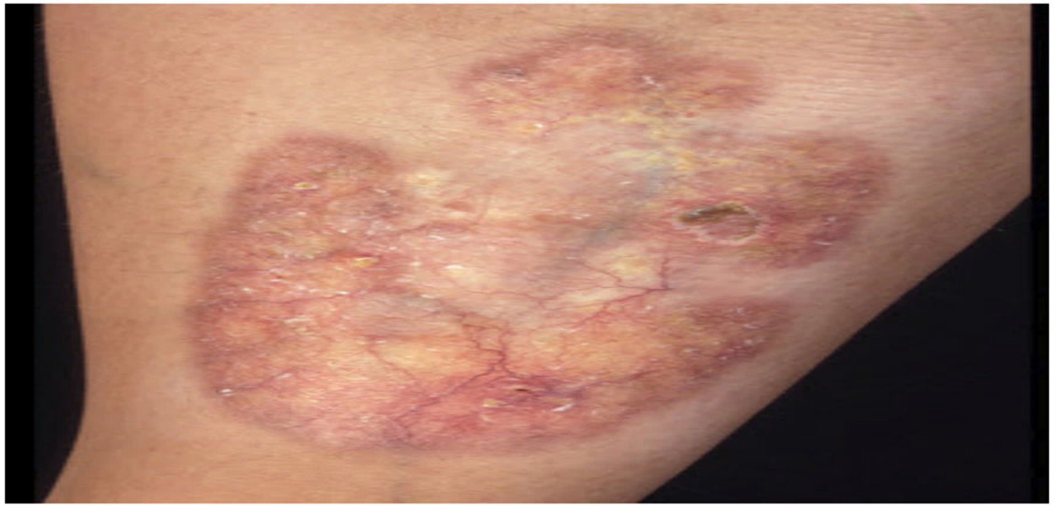
**Answered**: 149
✓ **Correct**: 31
✕ **Incorrect**: 118
**Average Score**: 20.81 %

## Question 151 of 329

Question Difficulty: **Hard**

Mr. X is complaining of painless plaque on his right shin 6 months ago. He has 10 years history of type-2 diabetes mellitus.

Examination shows degeneration of the skin with pale pink-yellowish plaque shown in the image.



What is the management of choice?

- ○ **Azathioprine**
- ○ **Flucloxacillin**
- ○ **Oral prednisolone**
- ● **Compression bandaging**
- ○ **Topical steroids**

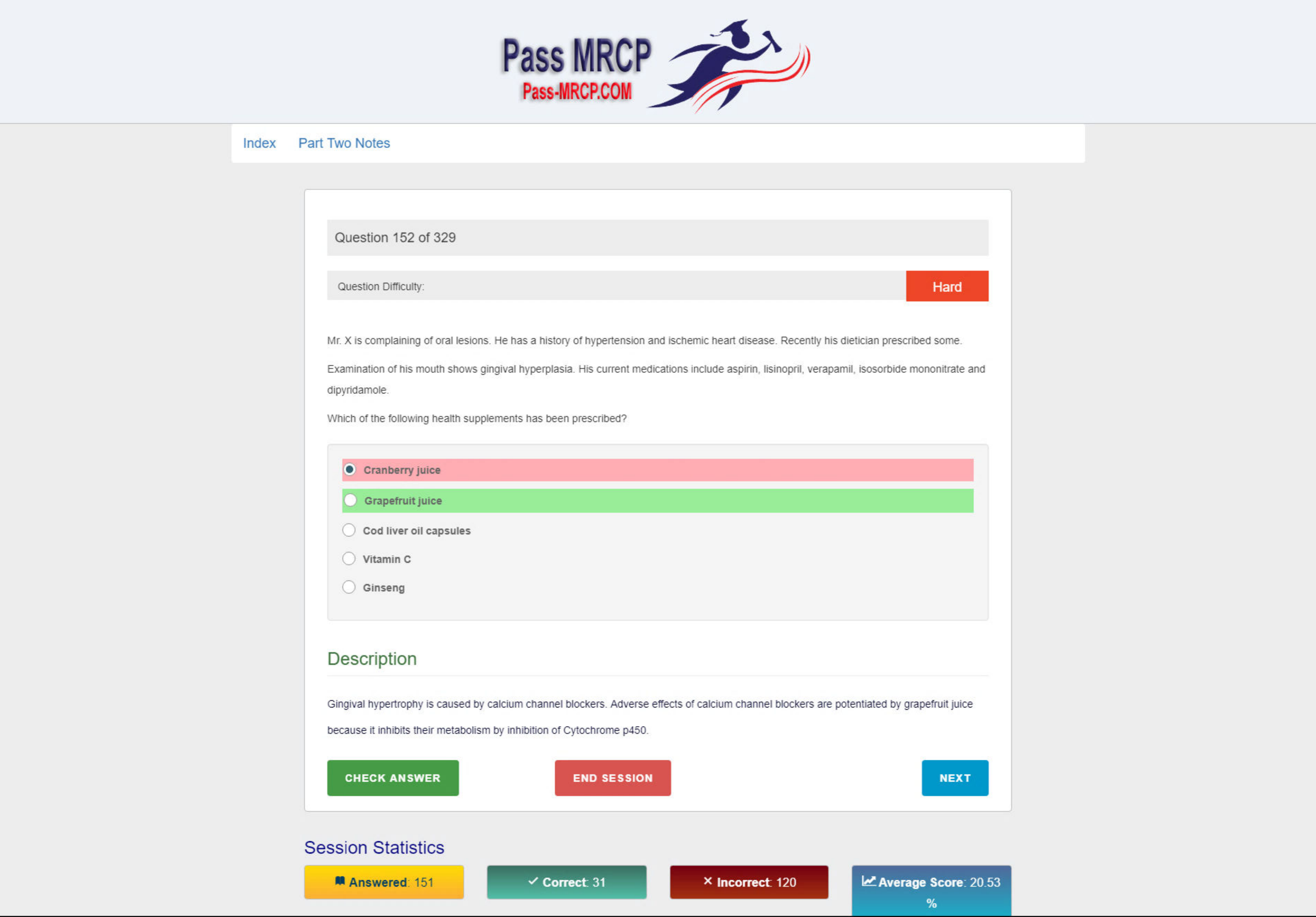
## Description

This patient is complaining of necrobiosis lipoidica. It is a disorder of collagen degeneration with a granulomatous response, thickening of blood vessel walls, and fat deposition.

It presents with shiny, painless patches that slowly enlarge over months to years. The patches are initially red-brown and progress to yellow-orange, depressed, atrophic plaques associated with telangiectasia.

The etiology of necrobiosis lipoidica is unknown but it has a strong relationship with diabetes mellitus.

Topical steroids and low-dose aspirin is used for early lesion; atrophied skin poorly respond to topical steroids.



Question 152 of 329

Question Difficulty: Hard

Mr. X is complaining of oral lesions. He has a history of hypertension and ischemic heart disease. Recently his dietician prescribed some.

Examination of his mouth shows gingival hyperplasia. His current medications include aspirin, lisinopril, verapamil, isosorbide mononitrate and dipyridamole.

Which of the following health supplements has been prescribed?

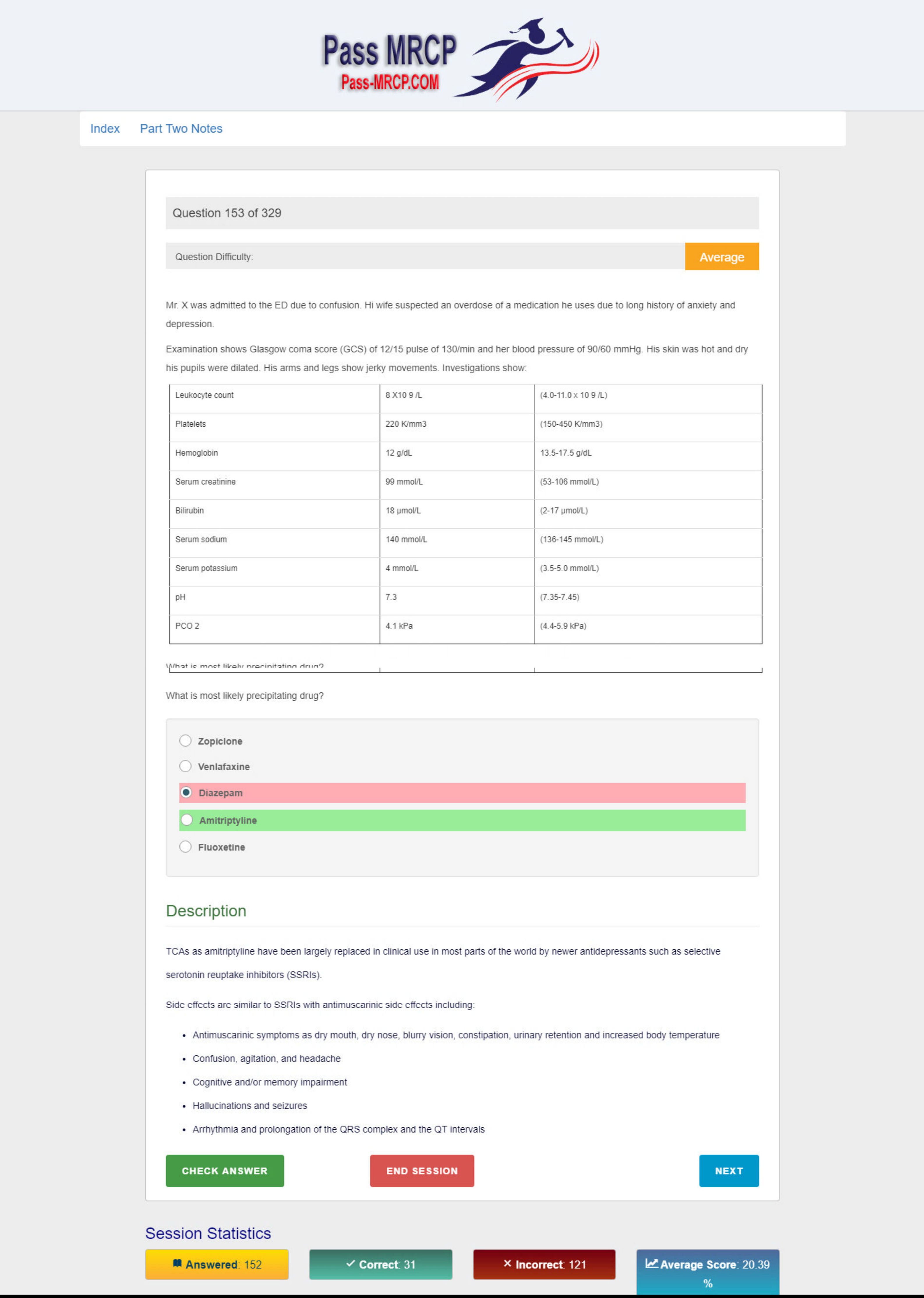
- ● Cranberry juice
- ○ Grapefruit juice
- ○ Cod liver oil capsules
- ○ Vitamin C
- ○ Ginseng

## Description

Gingival hypertrophy is caused by calcium channel blockers. Adverse effects of calcium channel blockers are potentiated by grapefruit juice because it inhibits their metabolism by inhibition of Cytochrome p450.

## Session Statistics

**Answered**: 151
✓ **Correct**: 31
✕ **Incorrect**: 120
**Average Score**: 20.53 %



Question 153 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to confusion. Hi wife suspected an overdose of a medication he uses due to long history of anxiety and depression.

Examination shows Glasgow coma score (GCS) of 12/15 pulse of 130/min and her blood pressure of 90/60 mmHg. His skin was hot and dry his pupils were dilated. His arms and legs show jerky movements. Investigations show:

| | | |
|---|---|---|
| Leukocyte count | 8 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 220 K/mm3 | (150-450 K/mm3) |
| Hemoglobin | 12 g/dL | 13.5-17.5 g/dL |
| Serum creatinine | 99 mmol/L | (53-106 mmol/L) |
| Bilirubin | 18 µmol/L | (2-17 µmol/L) |
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4 mmol/L | (3.5-5.0 mmol/L) |
| pH | 7.3 | (7.35-7.45) |
| PCO 2 | 4.1 kPa | (4.4-5.9 kPa) |

What is most likely precipitating drug?

What is most likely precipitating drug?

○ **Zopiclone**
○ **Venlafaxine**
● **Diazepam**
○ **Amitriptyline**
○ **Fluoxetine**

## Description

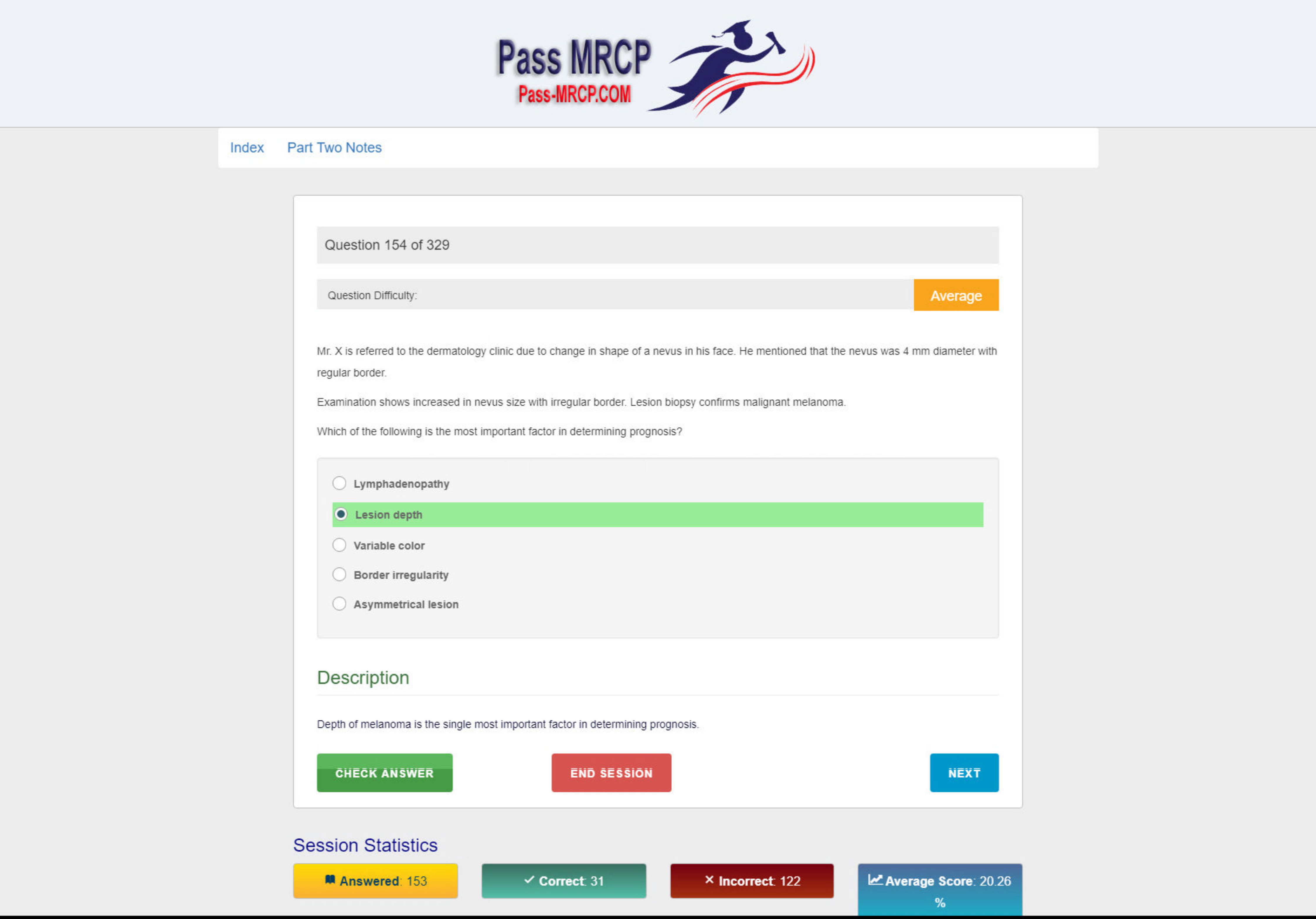
TCAs as amitriptyline have been largely replaced in clinical use in most parts of the world by newer antidepressants such as selective serotonin reuptake inhibitors (SSRIs).

Side effects are similar to SSRIs with antimuscarinic side effects including:

- Antimuscarinic symptoms as dry mouth, dry nose, blurry vision, constipation, urinary retention and increased body temperature
- Confusion, agitation, and headache
- Cognitive and/or memory impairment
- Hallucinations and seizures
- Arrhythmia and prolongation of the QRS complex and the QT intervals

## Session Statistics

**Answered**: 152
✓ **Correct**: 31
✕ **Incorrect**: 121
**Average Score**: 20.39 %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Question 154 of 329

Question Difficulty: Average

Mr. X is referred to the dermatology clinic due to change in shape of a nevus in his face. He mentioned that the nevus was 4 mm diameter with regular border.

Examination shows increased in nevus size with irregular border. Lesion biopsy confirms malignant melanoma.

Which of the following is the most important factor in determining prognosis?

- ○ Lymphadenopathy
- ● Lesion depth
- ○ Variable color
- ○ Border irregularity
- ○ Asymmetrical lesion

## Description

Depth of melanoma is the single most important factor in determining prognosis.

CHECK ANSWER
END SESSION
NEXT

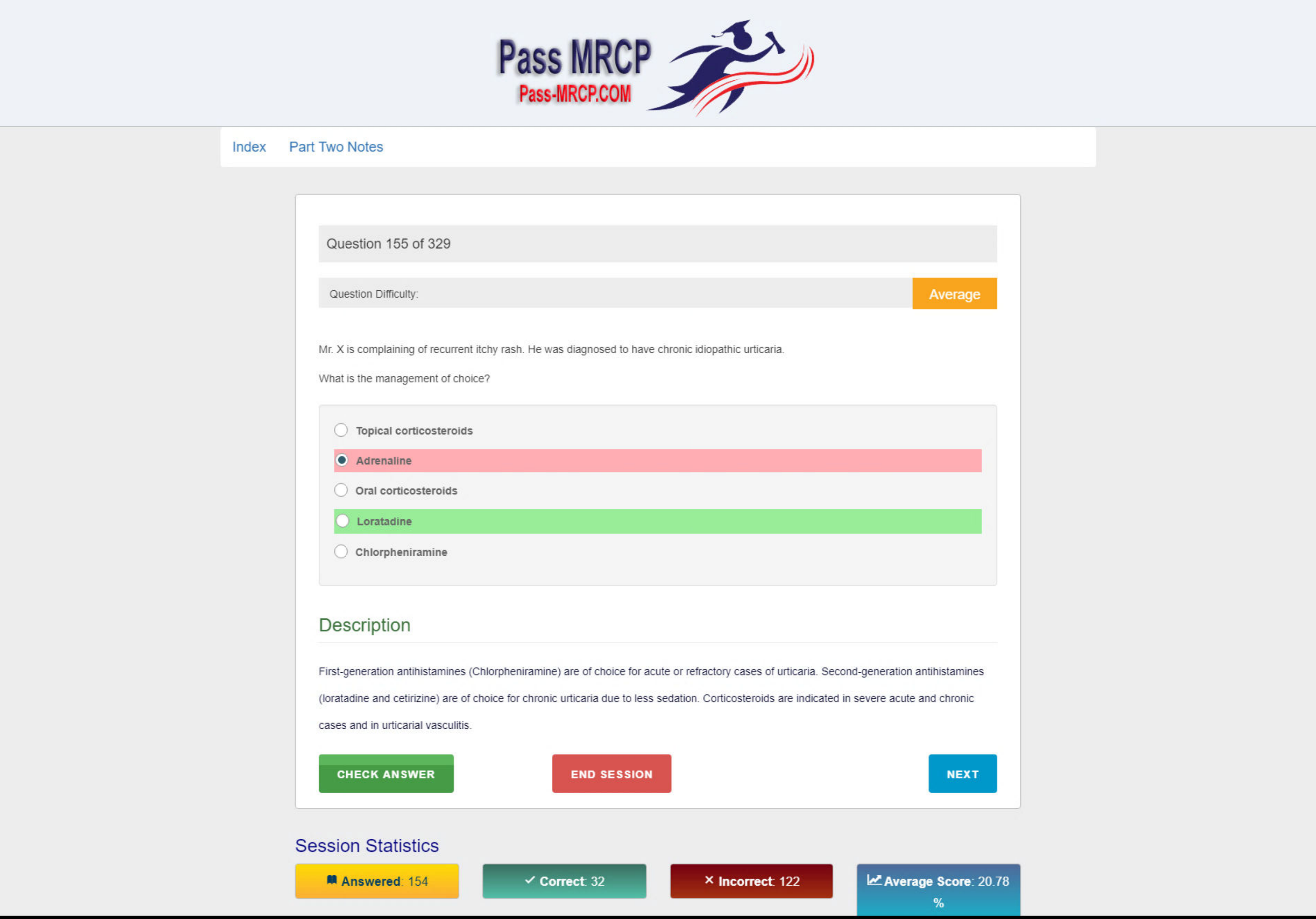
Session Statistics

**Answered**: 153

✓ **Correct**: 31

× **Incorrect**: 122

**Average Score**: 20.26 %



Question 155 of 329

Question Difficulty: **Average**

Mr. X is complaining of recurrent itchy rash. He was diagnosed to have chronic idiopathic urticaria.

What is the management of choice?

- ○ **Topical corticosteroids**
- ● **Adrenaline**
- ○ **Oral corticosteroids**
- ○ **Loratadine**
- ○ **Chlorpheniramine**

## Description

First-generation antihistamines (Chlorpheniramine) are of choice for acute or refractory cases of urticaria. Second-generation antihistamines (loratadine and cetirizine) are of choice for chronic urticaria due to less sedation. Corticosteroids are indicated in severe acute and chronic cases and in urticarial vasculitis.

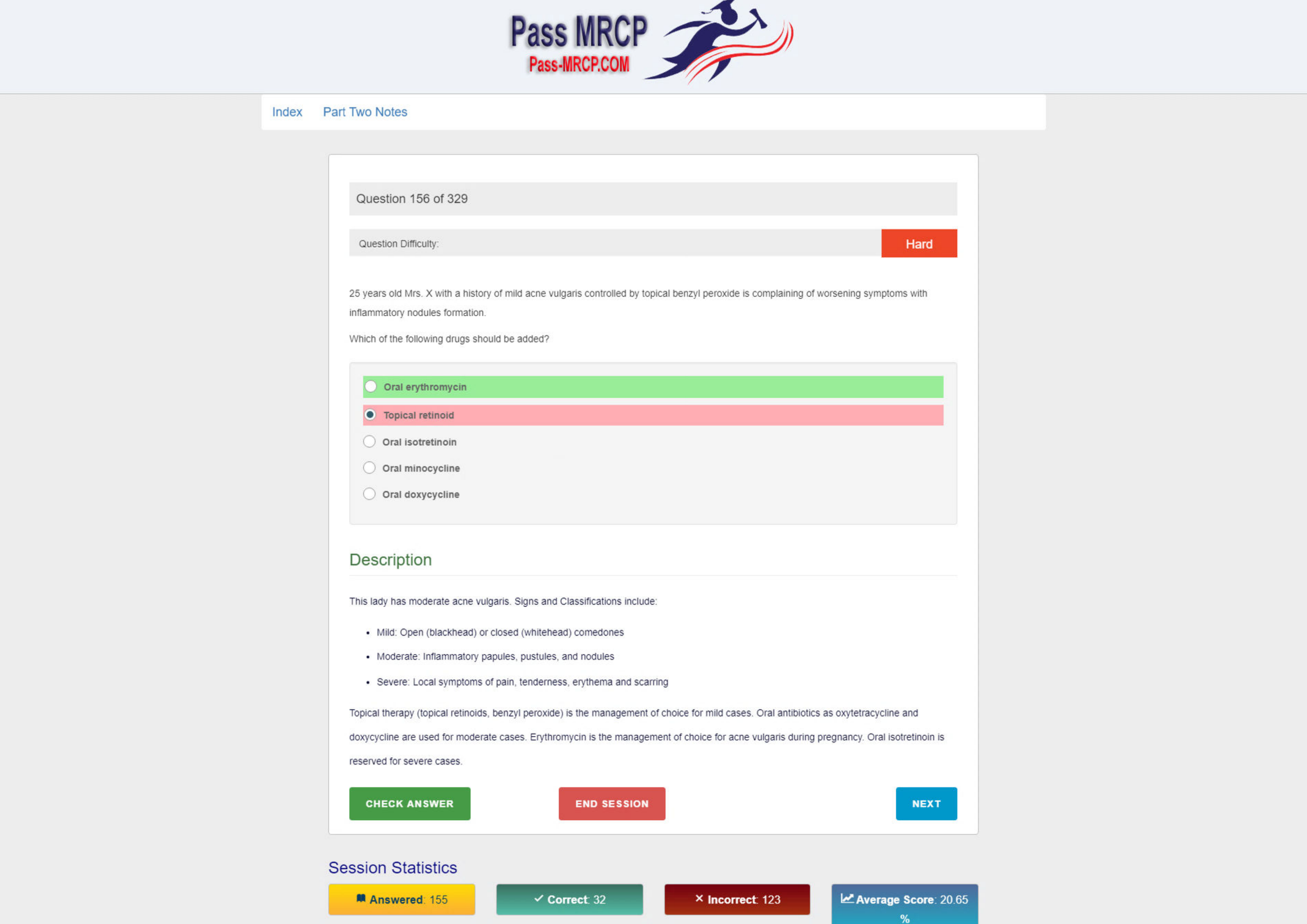
## Session Statistics

**Answered**: 154

✓ **Correct**: 32

✕ **Incorrect**: 122

**Average Score**: 20.78 %



Question 156 of 329

Question Difficulty: **Hard**

25 years old Mrs. X with a history of mild acne vulgaris controlled by topical benzyl peroxide is complaining of worsening symptoms with inflammatory nodules formation.

Which of the following drugs should be added?

○ **Oral erythromycin**
● **Topical retinoid**
○ **Oral isotretinoin**
○ **Oral minocycline**
○ **Oral doxycycline**

## Description

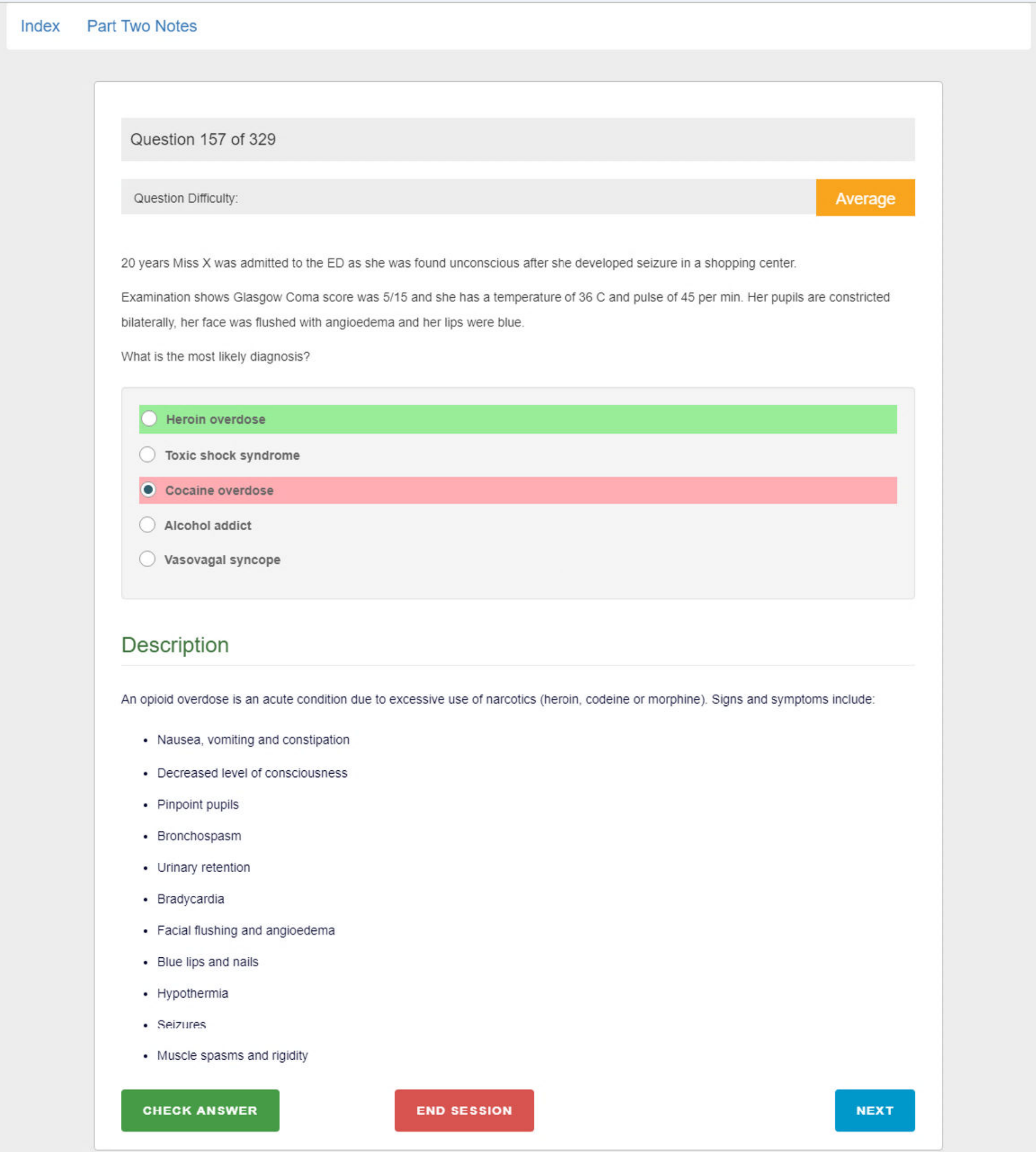
This lady has moderate acne vulgaris. Signs and Classifications include:

- Mild: Open (blackhead) or closed (whitehead) comedones
- Moderate: Inflammatory papules, pustules, and nodules
- Severe: Local symptoms of pain, tenderness, erythema and scarring

Topical therapy (topical retinoids, benzyl peroxide) is the management of choice for mild cases. Oral antibiotics as oxytetracycline and doxycycline are used for moderate cases. Erythromycin is the management of choice for acne vulgaris during pregnancy. Oral isotretinoin is reserved for severe cases.

## Session Statistics

**Answered**: 155
✓ **Correct**: 32
✕ **Incorrect**: 123
**Average Score**: 20.65 %



Question 157 of 329

Question Difficulty: Average

20 years Miss X was admitted to the ED as she was found unconscious after she developed seizure in a shopping center.

Examination shows Glasgow Coma score was 5/15 and she has a temperature of 36 C and pulse of 45 per min. Her pupils are constricted bilaterally, her face was flushed with angioedema and her lips were blue.

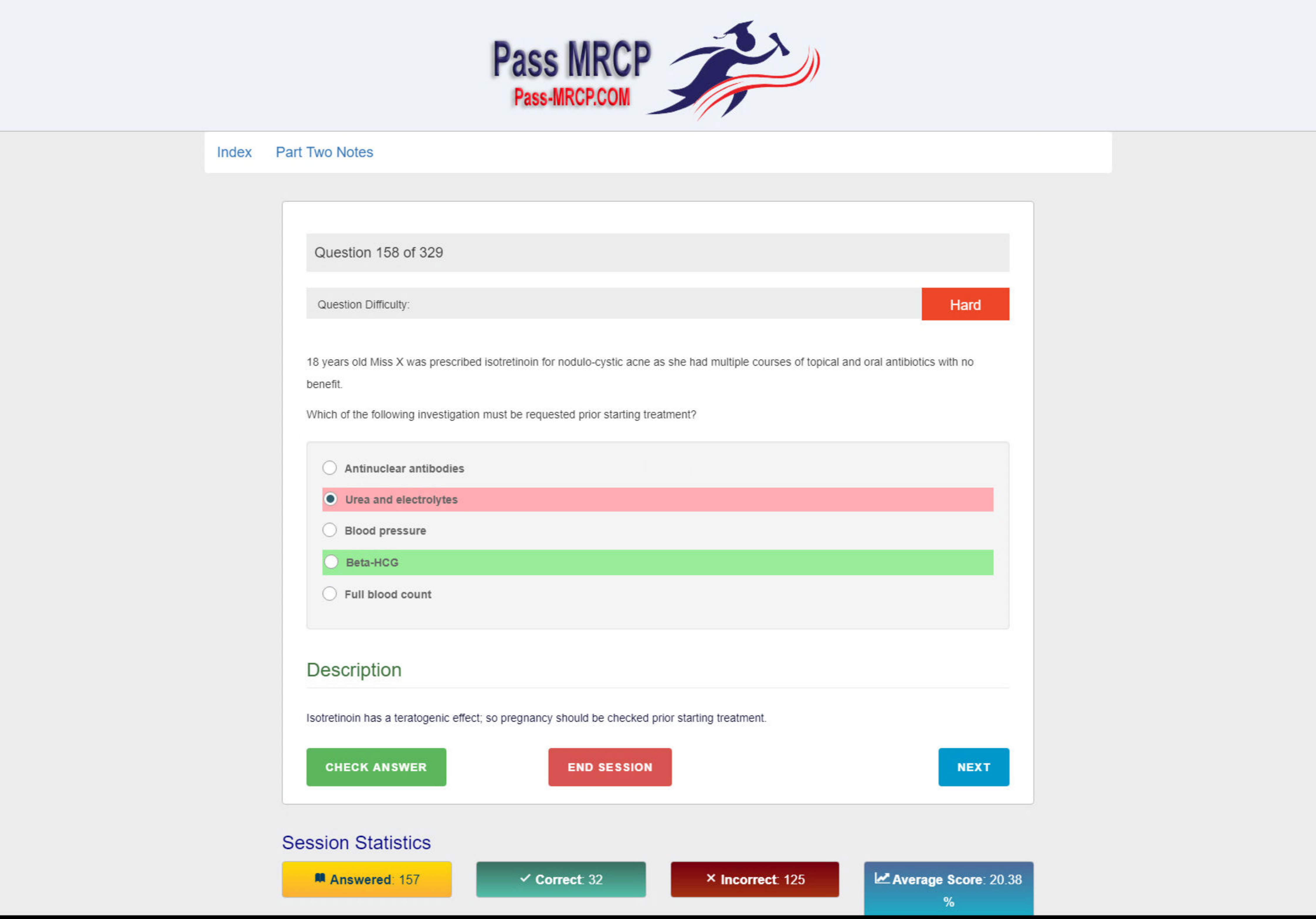
What is the most likely diagnosis?

○ Heroin overdose
○ Toxic shock syndrome
● Cocaine overdose
○ Alcohol addict
○ Vasovagal syncope

## Description

An opioid overdose is an acute condition due to excessive use of narcotics (heroin, codeine or morphine). Signs and symptoms include:

- Nausea, vomiting and constipation
- Decreased level of consciousness
- Pinpoint pupils
- Bronchospasm
- Urinary retention
- Bradycardia
- Facial flushing and angioedema
- Blue lips and nails
- Hypothermia
- Seizures
- Muscle spasms and rigidity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Question 158 of 329

Question Difficulty: Hard

18 years old Miss X was prescribed isotretinoin for nodulo-cystic acne as she had multiple courses of topical and oral antibiotics with no benefit.

Which of the following investigation must be requested prior starting treatment?

○ Antinuclear antibodies
● Urea and electrolytes
○ Blood pressure
○ Beta-HCG
○ Full blood count

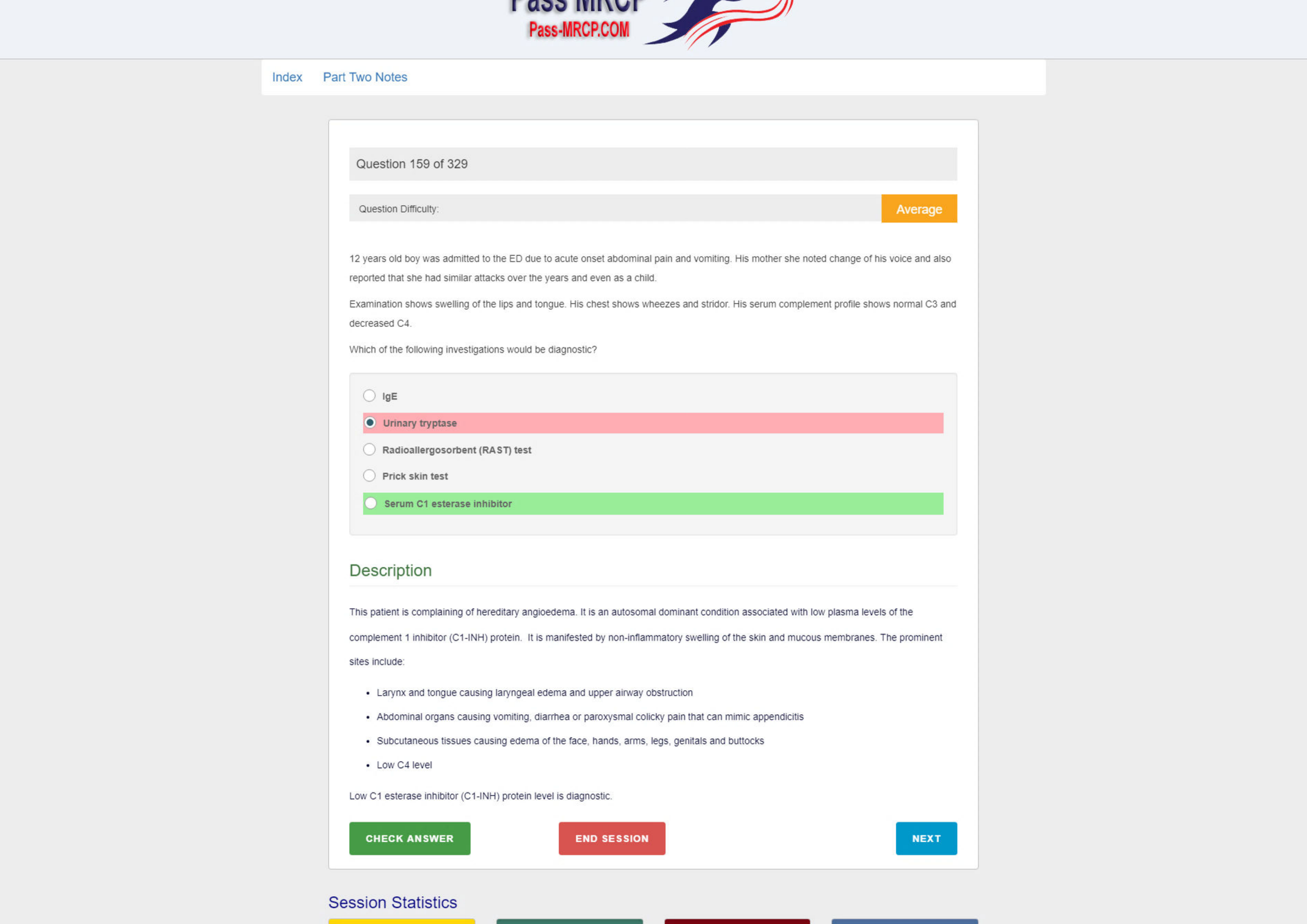
## Description

Isotretinoin has a teratogenic effect; so pregnancy should be checked prior starting treatment.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 157
✓ Correct: 32
✕ Incorrect: 125
Average Score: 20.38 %



Question 159 of 329

Question Difficulty: Average

12 years old boy was admitted to the ED due to acute onset abdominal pain and vomiting. His mother she noted change of his voice and also reported that she had similar attacks over the years and even as a child.

Examination shows swelling of the lips and tongue. His chest shows wheezes and stridor. His serum complement profile shows normal C3 and decreased C4.

Which of the following investigations would be diagnostic?

○ **IgE**
● **Urinary tryptase**
○ **Radioallergosorbent (RAST) test**
○ **Prick skin test**
○ **Serum C1 esterase inhibitor**

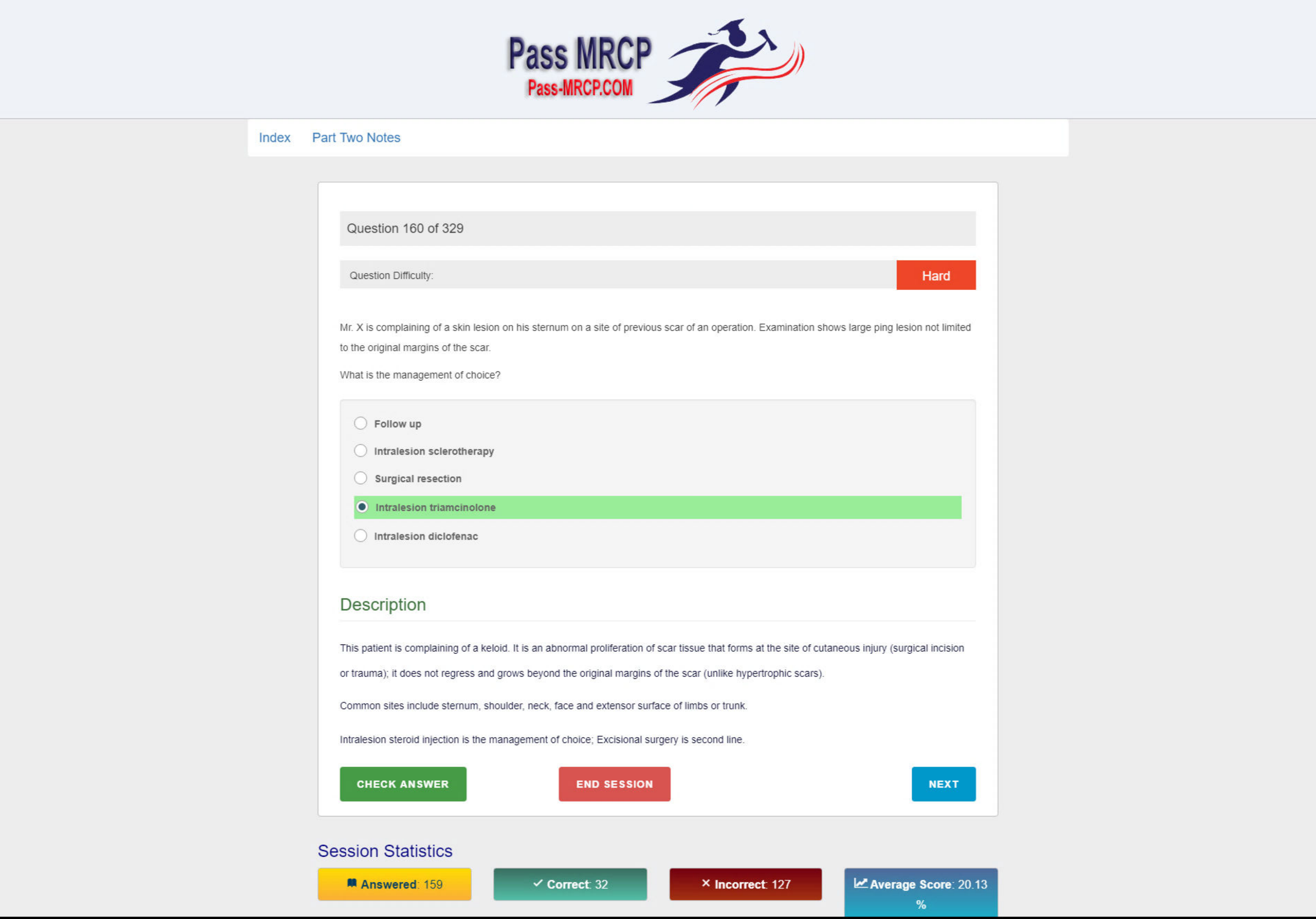
## Description

This patient is complaining of hereditary angioedema. It is an autosomal dominant condition associated with low plasma levels of the complement 1 inhibitor (C1-INH) protein. It is manifested by non-inflammatory swelling of the skin and mucous membranes. The prominent sites include:

- Larynx and tongue causing laryngeal edema and upper airway obstruction
- Abdominal organs causing vomiting, diarrhea or paroxysmal colicky pain that can mimic appendicitis
- Subcutaneous tissues causing edema of the face, hands, arms, legs, genitals and buttocks
- Low C4 level

Low C1 esterase inhibitor (C1-INH) protein level is diagnostic.

Session Statistics



Question 160 of 329

Question Difficulty: Hard

Mr. X is complaining of a skin lesion on his sternum on a site of previous scar of an operation. Examination shows large ping lesion not limited to the original margins of the scar.

What is the management of choice?

- ○ Follow up
- ○ Intralesion sclerotherapy
- ○ Surgical resection
- ● Intralesion triamcinolone
- ○ Intralesion diclofenac

## Description

This patient is complaining of a keloid. It is an abnormal proliferation of scar tissue that forms at the site of cutaneous injury (surgical incision or trauma); it does not regress and grows beyond the original margins of the scar (unlike hypertrophic scars).

Common sites include sternum, shoulder, neck, face and extensor surface of limbs or trunk.

Intralesion steroid injection is the management of choice; Excisional surgery is second line.

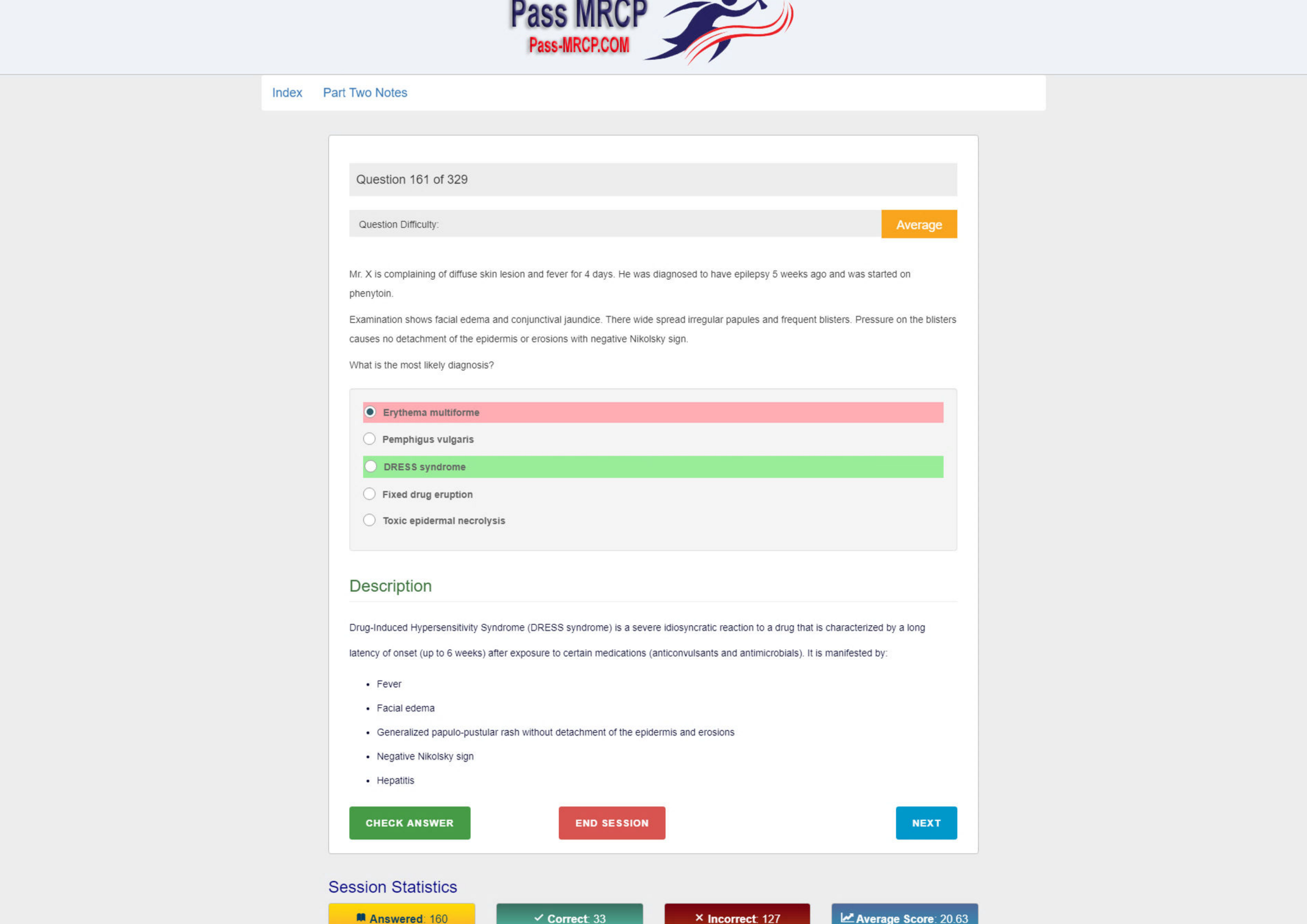
## Session Statistics

Answered: 159

✓ Correct: 32

✕ Incorrect: 127

Average Score: 20.13 %



Question 161 of 329

Question Difficulty: Average

Mr. X is complaining of diffuse skin lesion and fever for 4 days. He was diagnosed to have epilepsy 5 weeks ago and was started on phenytoin.

Examination shows facial edema and conjunctival jaundice. There wide spread irregular papules and frequent blisters. Pressure on the blisters causes no detachment of the epidermis or erosions with negative Nikolsky sign.

What is the most likely diagnosis?

● **Erythema multiforme**
○ **Pemphigus vulgaris**
○ **DRESS syndrome**
○ **Fixed drug eruption**
○ **Toxic epidermal necrolysis**

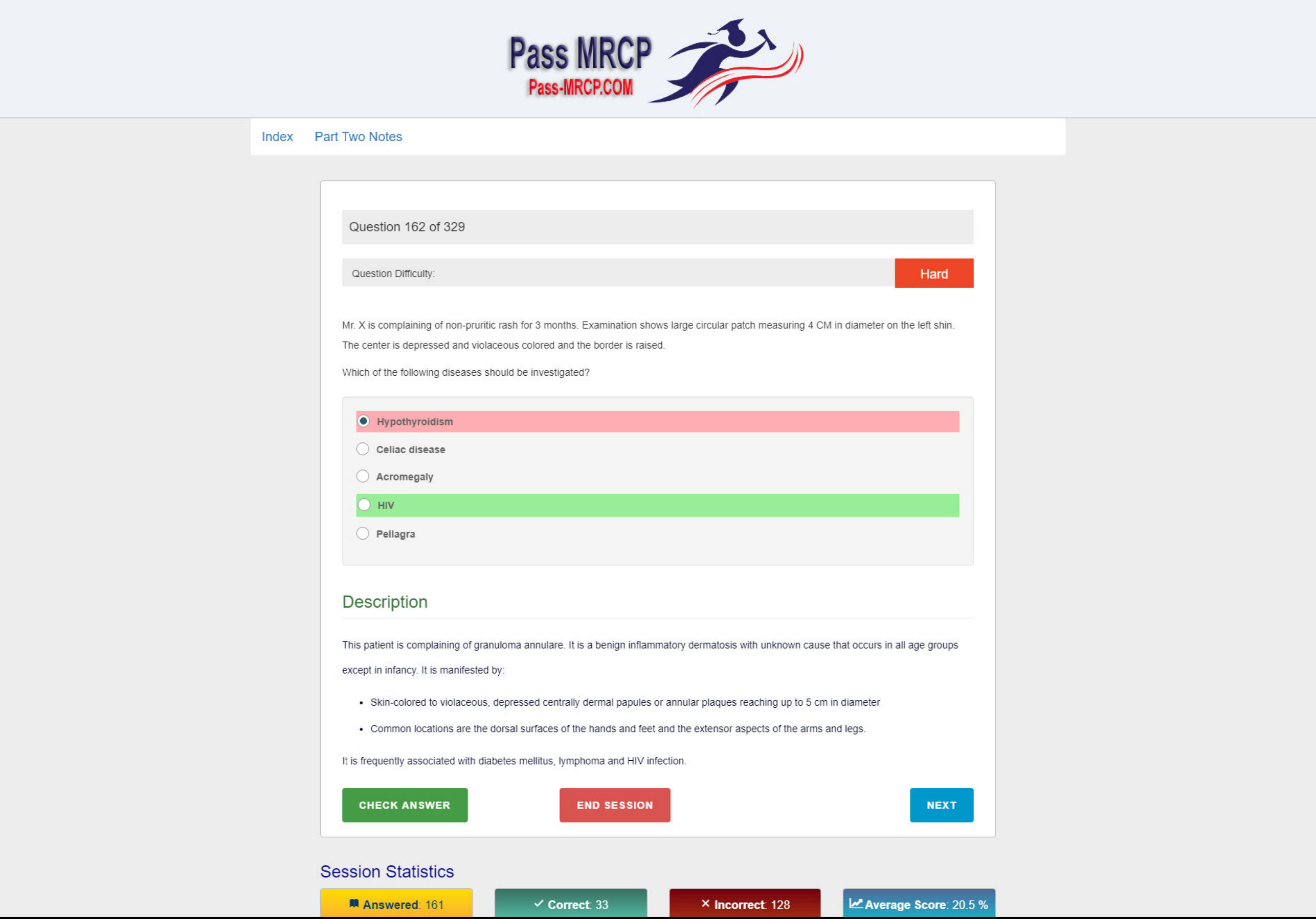
## Description

Drug-Induced Hypersensitivity Syndrome (DRESS syndrome) is a severe idiosyncratic reaction to a drug that is characterized by a long latency of onset (up to 6 weeks) after exposure to certain medications (anticonvulsants and antimicrobials). It is manifested by:

- Fever
- Facial edema
- Generalized papulo-pustular rash without detachment of the epidermis and erosions
- Negative Nikolsky sign
- Hepatitis

Session Statistics

**Answered**: 160
**Correct**: 33
**Incorrect**: 127
**Average Score**: 20.63



Question 162 of 329

Question Difficulty: Hard

Mr. X is complaining of non-pruritic rash for 3 months. Examination shows large circular patch measuring 4 CM in diameter on the left shin. The center is depressed and violaceous colored and the border is raised.

Which of the following diseases should be investigated?

● Hypothyroidism
○ Celiac disease
○ Acromegaly
○ HIV
○ Pellagra

## Description

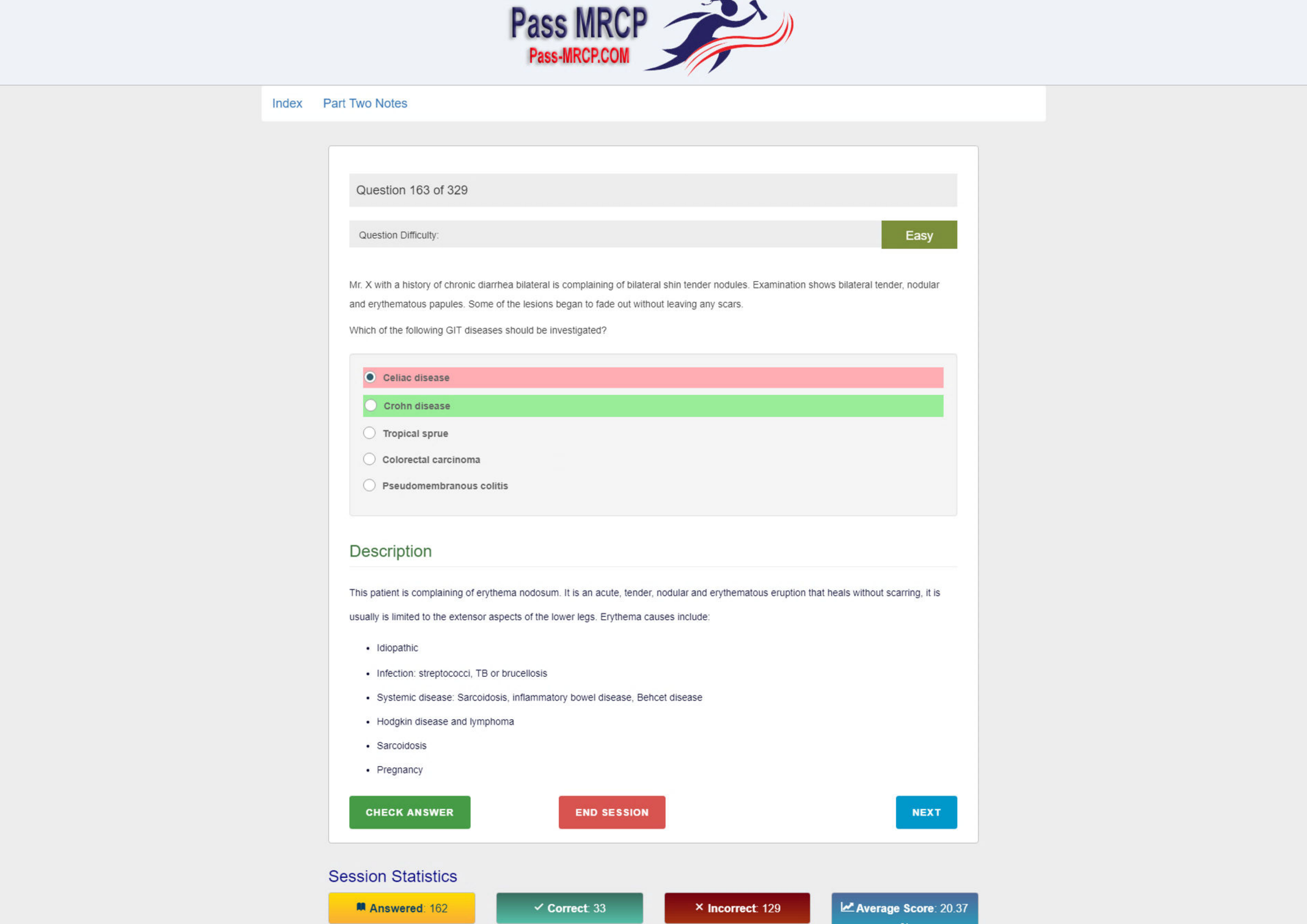
This patient is complaining of granuloma annulare. It is a benign inflammatory dermatosis with unknown cause that occurs in all age groups except in infancy. It is manifested by:

- Skin-colored to violaceous, depressed centrally dermal papules or annular plaques reaching up to 5 cm in diameter
- Common locations are the dorsal surfaces of the hands and feet and the extensor aspects of the arms and legs.

It is frequently associated with diabetes mellitus, lymphoma and HIV infection.

Session Statistics

Answered: 161
✓ Correct: 33
✕ Incorrect: 128
Average Score: 20.5 %



Question 163 of 329

Question Difficulty: Easy

Mr. X with a history of chronic diarrhea bilateral is complaining of bilateral shin tender nodules. Examination shows bilateral tender, nodular and erythematous papules. Some of the lesions began to fade out without leaving any scars.

Which of the following GIT diseases should be investigated?

● Celiac disease
○ Crohn disease
○ Tropical sprue
○ Colorectal carcinoma
○ Pseudomembranous colitis

## Description

This patient is complaining of erythema nodosum. It is an acute, tender, nodular and erythematous eruption that heals without scarring, it is usually is limited to the extensor aspects of the lower legs. Erythema causes include:

- Idiopathic
- Infection: streptococci, TB or brucellosis
- Systemic disease: Sarcoidosis, inflammatory bowel disease, Behcet disease
- Hodgkin disease and lymphoma
- Sarcoidosis
- Pregnancy

Session Statistics

Answered: 162
✓ Correct: 33
✕ Incorrect: 129
Average Score: 20.37

Question 164 of 329

Question Difficulty: **Hard**

Mr. was admitted to the ICU due to dyspnea and seizures. He was admitted to the inpatient a day ago from the ICU after controlled hypertensive encephalopathy. He was managed by sodium nitroprusside and amlodipine.

Examination shows respiratory rate of 20 per min and O2 saturation of 90%. His nails show brown cyanosis. His arterial blood gases show:

| | | |
|---|---|---|
| PO 2 | 13 kPa | (10.0-14.0 kPa) |
| PCO 2 | 4.2 kPa | (4.4-5.9 kPa) |

What is the management of choice?

○ **Hyperbaric oxygen**

○ **IV methylene blue**

● **IV heparin**

○ **Intubation**

○ **Bronchoscopy**

Description

○ **Hyperbaric oxygen**

○ **IV methylene blue**

● **IV heparin**

○ **Intubation**

○ **Bronchoscopy**

## Description

Methemoglobinemia is a disorder characterized by the presence of a higher than normal level of methemoglobin (ferric [Fe3+] rather than ferrous [Fe2+] hemoglobin) in the blood. Sodium nitroprusside is a common precipitating drug.

Methemoglobin has a decreased ability to bind oxygen which leads to an overall reduced ability of the red blood cell to release oxygen to tissues. Signs and Symptoms include:

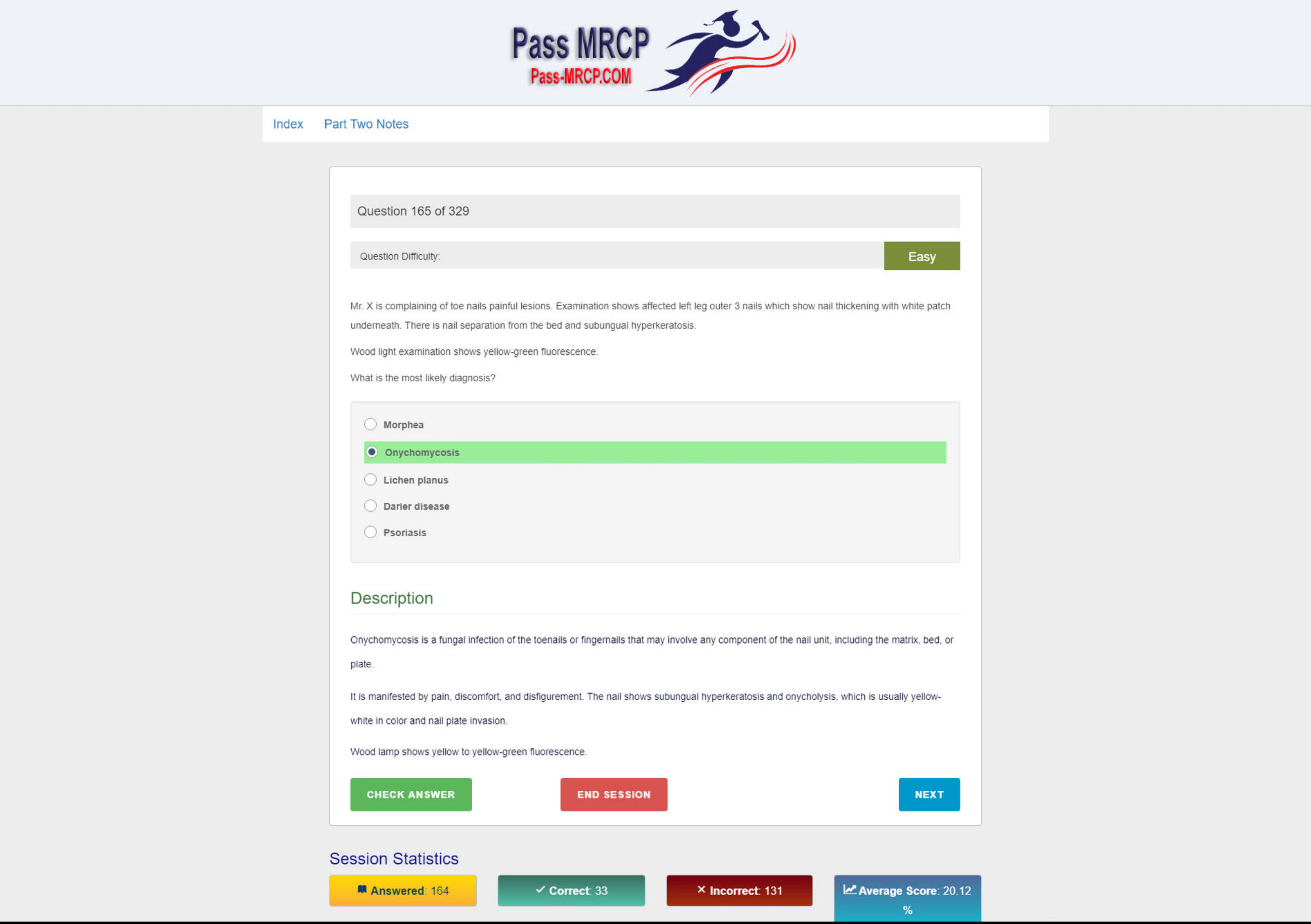
- Dyspnea and seizures
- Headache, fatigue and exercise intolerance
- Dizziness and loss of consciousness
- Normal pO2 but decreased oxygen saturation
- Seizures, coma and death in severe cases

Management is by oxygen supplementation and IV methylene blue.

CHECK ANSWER END SESSION NEXT

Session Statistics

**Answered**: 163 ✓ **Correct**: 33 ✕ **Incorrect**: 130 **Average Score**: 20.25 %



Question 165 of 329

Question Difficulty: Easy

Mr. X is complaining of toe nails painful lesions. Examination shows affected left leg outer 3 nails which show nail thickening with white patch underneath. There is nail separation from the bed and subungual hyperkeratosis.

Wood light examination shows yellow-green fluorescence.

What is the most likely diagnosis?

○ Morphea
● Onychomycosis
○ Lichen planus
○ Darier disease
○ Psoriasis

## Description

Onychomycosis is a fungal infection of the toenails or fingernails that may involve any component of the nail unit, including the matrix, bed, or plate.

It is manifested by pain, discomfort, and disfigurement. The nail shows subungual hyperkeratosis and onycholysis, which is usually yellow-white in color and nail plate invasion.

Wood lamp shows yellow to yellow-green fluorescence.

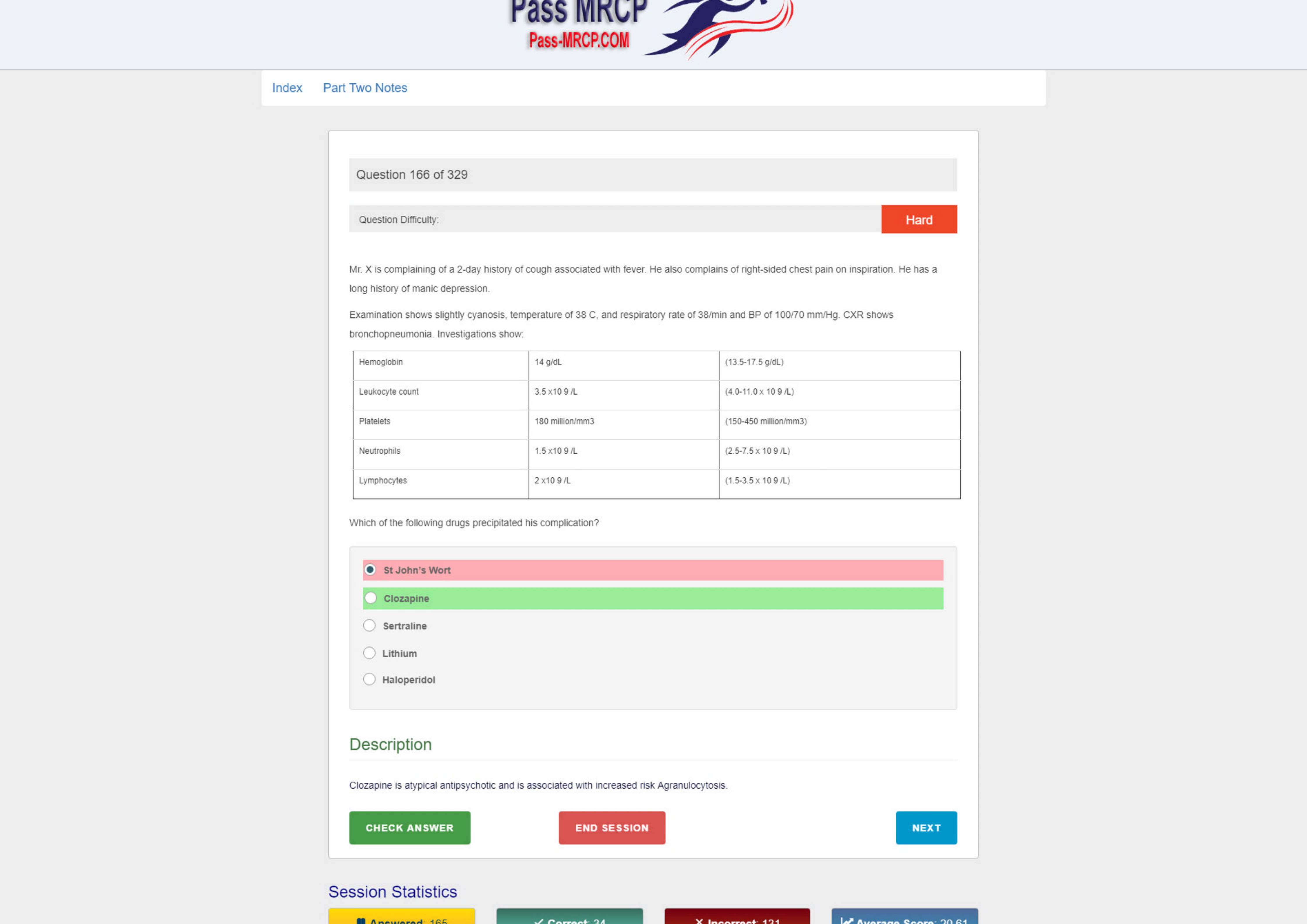
## Session Statistics

Answered: 164

✓ Correct: 33

✕ Incorrect: 131

Average Score: 20.12 %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Question 166 of 329

Question Difficulty: Hard

Mr. X is complaining of a 2-day history of cough associated with fever. He also complains of right-sided chest pain on inspiration. He has a long history of manic depression.

Examination shows slightly cyanosis, temperature of 38 C, and respiratory rate of 38/min and BP of 100/70 mm/Hg. CXR shows bronchopneumonia. Investigations show:

| | | |
|---|---|---|
| Hemoglobin | 14 g/dL | (13.5-17.5 g/dL) |
| Leukocyte count | 3.5 x10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 180 million/mm3 | (150-450 million/mm3) |
| Neutrophils | 1.5 x10 9 /L | (2.5-7.5 x 10 9 /L) |
| Lymphocytes | 2 x10 9 /L | (1.5-3.5 x 10 9 /L) |

Which of the following drugs precipitated his complication?

- ● St John's Wort
- ○ Clozapine
- ○ Sertraline
- ○ Lithium
- ○ Haloperidol

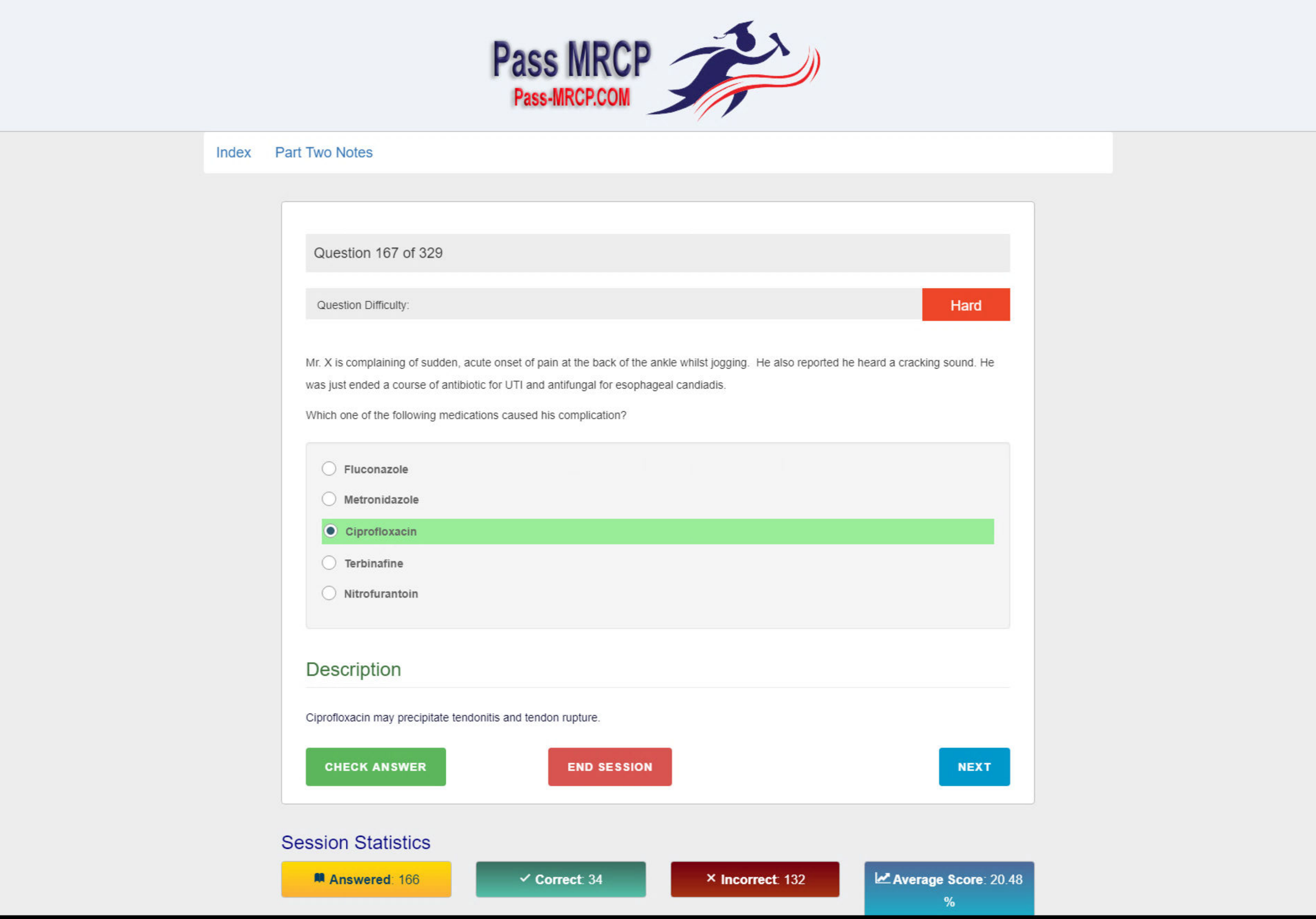
## Description

Clozapine is atypical antipsychotic and is associated with increased risk Agranulocytosis.

CHECK ANSWER
END SESSION
NEXT

Session Statistics

Answered: 165
Correct: 34
Incorrect: 131
Average Score: 20.61



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Question 167 of 329

Question Difficulty: Hard

Mr. X is complaining of sudden, acute onset of pain at the back of the ankle whilst jogging. He also reported he heard a cracking sound. He was just ended a course of antibiotic for UTI and antifungal for esophageal candiadis.

Which one of the following medications caused his complication?

○ Fluconazole
○ Metronidazole
● Ciprofloxacin
○ Terbinafine
○ Nitrofurantoin

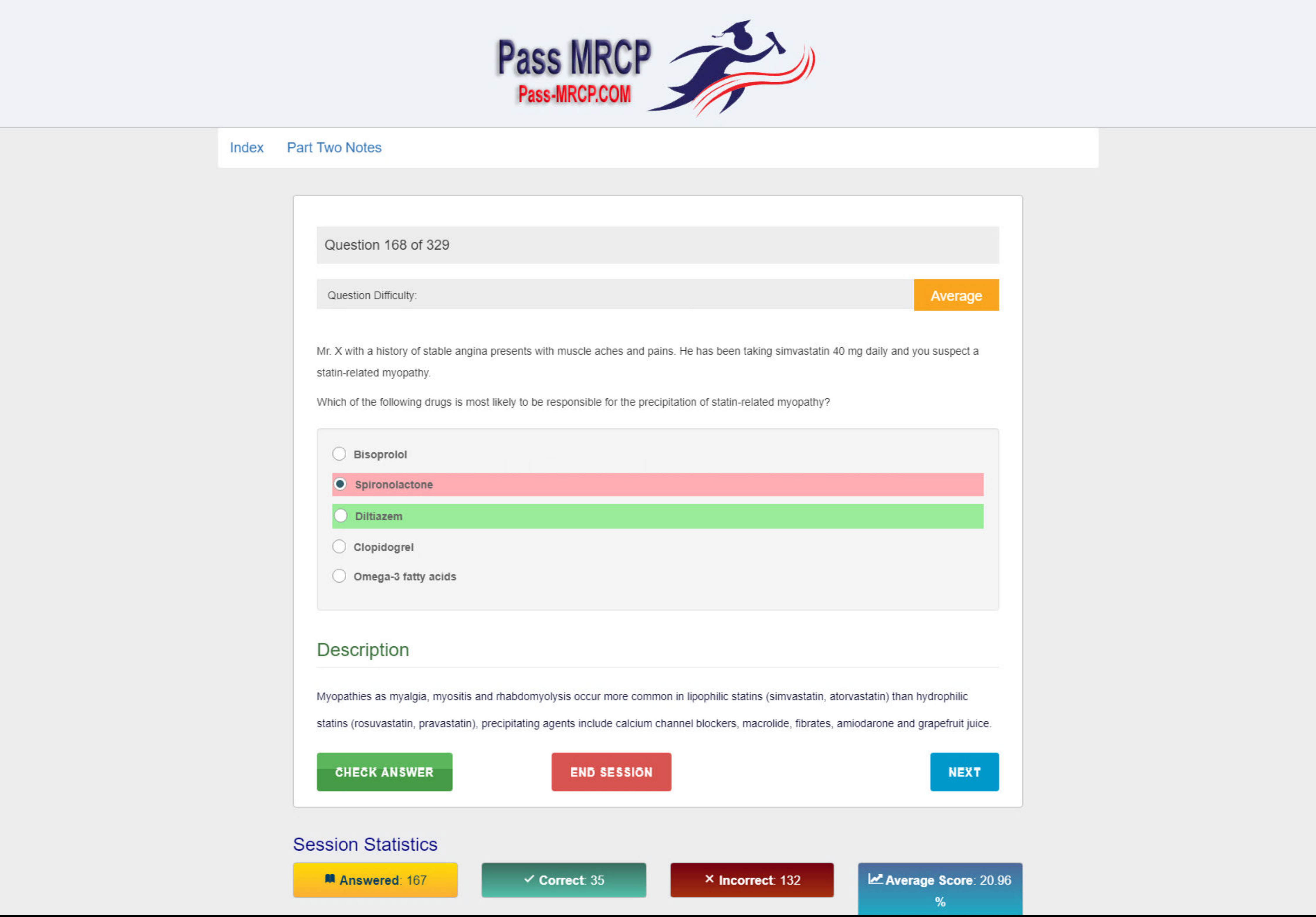
## Description

Ciprofloxacin may precipitate tendonitis and tendon rupture.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 166
✓ Correct: 34
✕ Incorrect: 132
Average Score: 20.48 %



Question 168 of 329

Question Difficulty: Average

Mr. X with a history of stable angina presents with muscle aches and pains. He has been taking simvastatin 40 mg daily and you suspect a statin-related myopathy.

Which of the following drugs is most likely to be responsible for the precipitation of statin-related myopathy?

- ○ Bisoprolol
- ● Spironolactone
- ○ Diltiazem
- ○ Clopidogrel
- ○ Omega-3 fatty acids

## Description

Myopathies as myalgia, myositis and rhabdomyolysis occur more common in lipophilic statins (simvastatin, atorvastatin) than hydrophilic statins (rosuvastatin, pravastatin), precipitating agents include calcium channel blockers, macrolide, fibrates, amiodarone and grapefruit juice.

## Session Statistics

**Answered**: 167

✓ **Correct**: 35

× **Incorrect**: 132

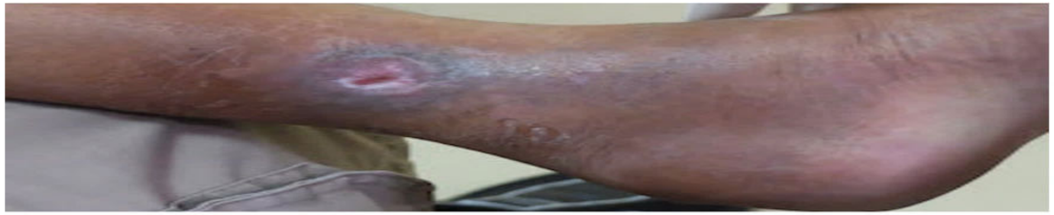
**Average Score**: 20.96 %

Question 169 of 329

Question Difficulty: Average

Mr. X is complaining of an ulcer on his left leg that started to grow 6 days ago. He has a history of 3 attacks of deep venous thrombosis over the past 2 years.

Examination shows an ulcer over the left medial malleolus with fibrosis and purpura of the surrounding skin as in the image. The ulcer shows moist base and irregular border. This base oozes blood with minimal pressure. The dorsalis pedis pulse is normal.



What is the most likely diagnosis?

- ○ Neuropathic ulcer
- ○ Vasculitis ulcers
- ○ Venous ulcer
- ○ Arterial ulcer
- ● Flea infestation

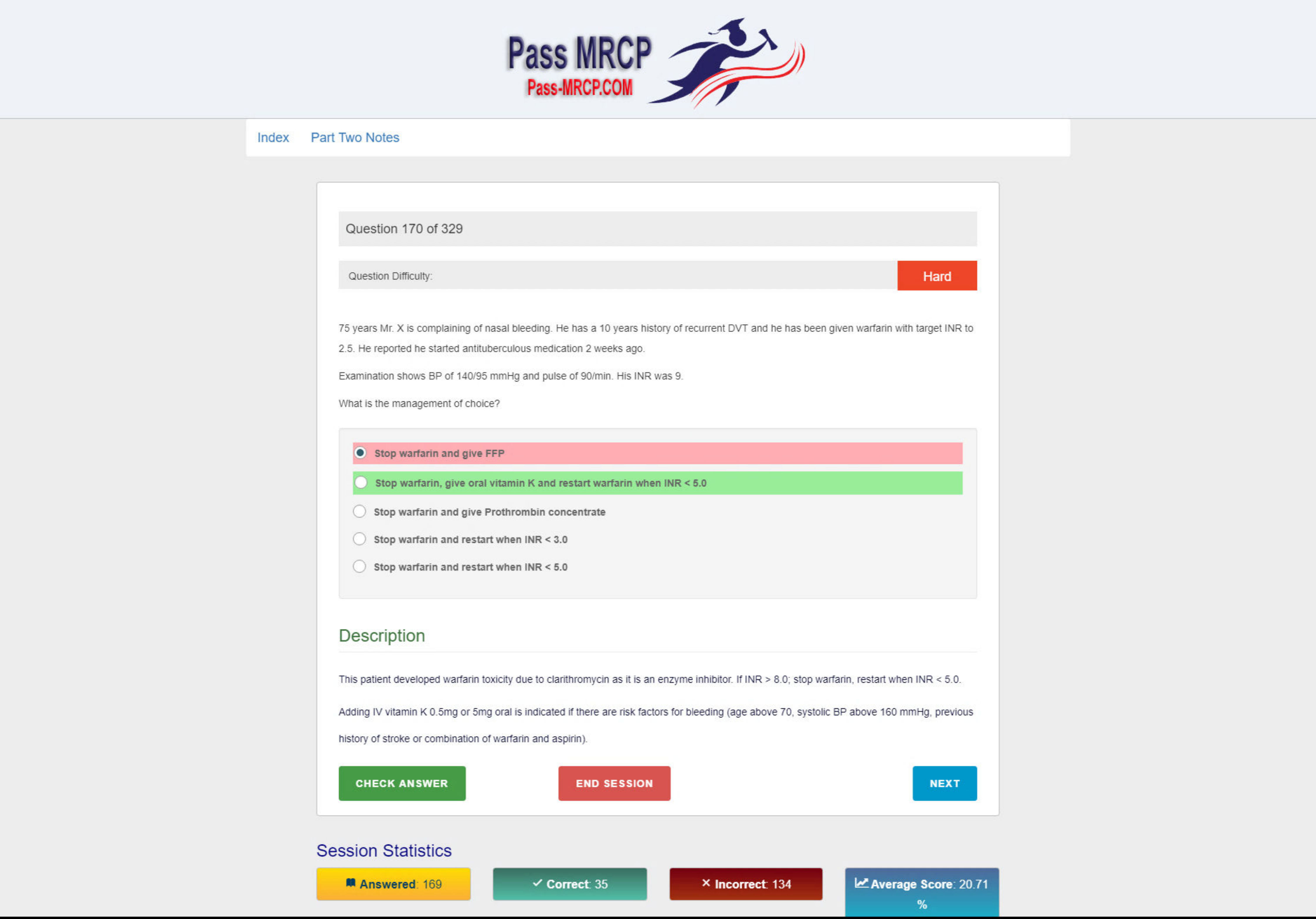
## Description

Venous ulcers have a moist granulating base and an irregular border. This base oozes venous blood when manipulated. They are located below the medial and lateral malleoli.

Arterial ulcers have irregular edges and the base contains grayish, unhealthy-appearing granulation tissue. They are often painful and located distally and on the dorsum of the foot or toes.

CHECK ANSWER END SESSION NEXT

Session Statistics



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Question 170 of 329

Question Difficulty: **Hard**

75 years Mr. X is complaining of nasal bleeding. He has a 10 years history of recurrent DVT and he has been given warfarin with target INR to 2.5. He reported he started antituberculous medication 2 weeks ago.

Examination shows BP of 140/95 mmHg and pulse of 90/min. His INR was 9.

What is the management of choice?

- ● **Stop warfarin and give FFP**
- ○ **Stop warfarin, give oral vitamin K and restart warfarin when INR < 5.0**
- ○ **Stop warfarin and give Prothrombin concentrate**
- ○ **Stop warfarin and restart when INR < 3.0**
- ○ **Stop warfarin and restart when INR < 5.0**

## Description

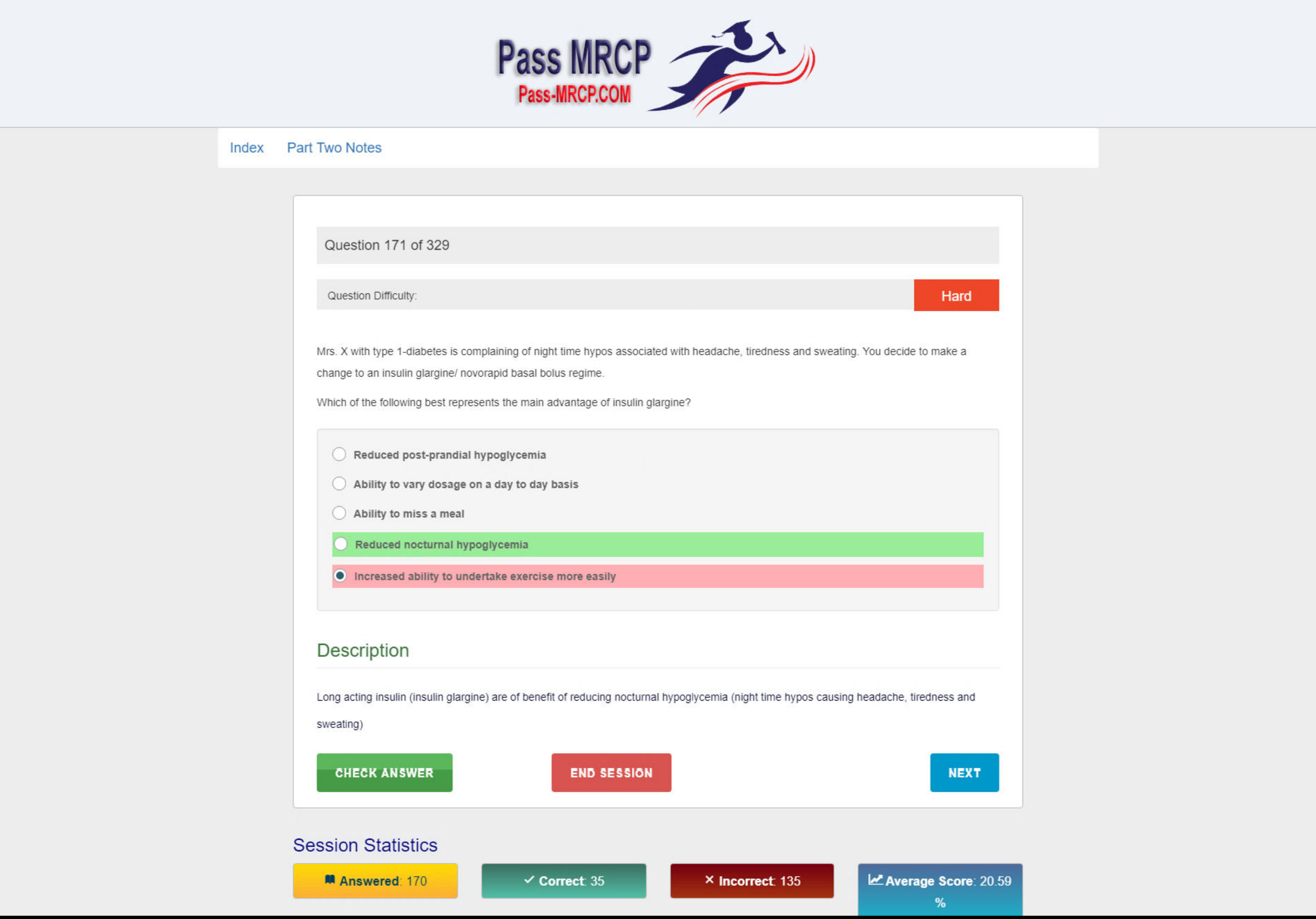
This patient developed warfarin toxicity due to clarithromycin as it is an enzyme inhibitor. If INR > 8.0; stop warfarin, restart when INR < 5.0.

Adding IV vitamin K 0.5mg or 5mg oral is indicated if there are risk factors for bleeding (age above 70, systolic BP above 160 mmHg, previous history of stroke or combination of warfarin and aspirin).

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 169
✓ Correct: 35
✕ Incorrect: 134
Average Score: 20.71 %



Question 171 of 329

Question Difficulty: **Hard**

Mrs. X with type 1-diabetes is complaining of night time hypos associated with headache, tiredness and sweating. You decide to make a change to an insulin glargine/ novorapid basal bolus regime.

Which of the following best represents the main advantage of insulin glargine?

- ○ **Reduced post-prandial hypoglycemia**
- ○ **Ability to vary dosage on a day to day basis**
- ○ **Ability to miss a meal**
- ○ **Reduced nocturnal hypoglycemia**
- ● **Increased ability to undertake exercise more easily**

## Description

Long acting insulin (insulin glargine) are of benefit of reducing nocturnal hypoglycemia (night time hypos causing headache, tiredness and sweating)

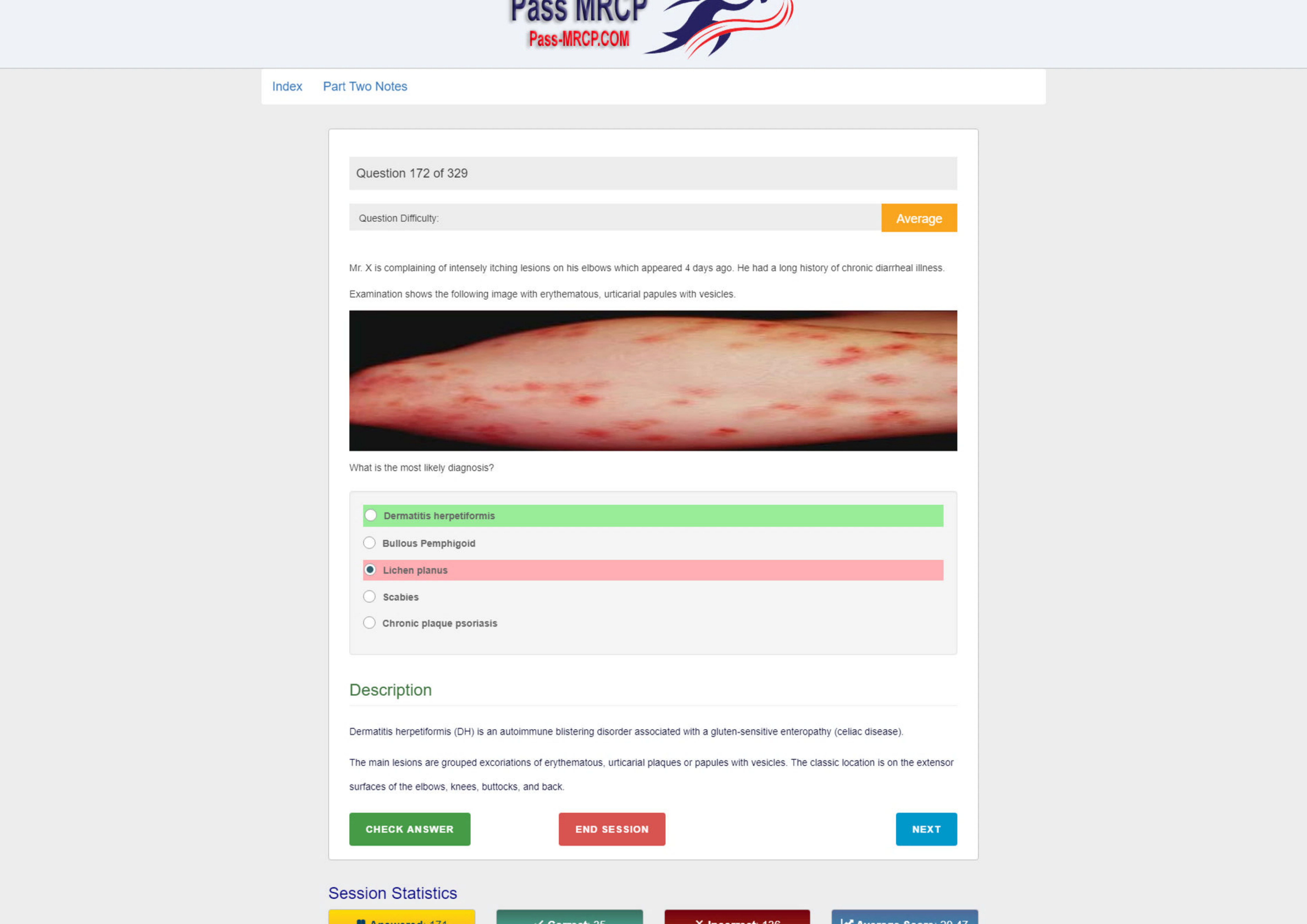
## Session Statistics

**Answered**: 170

✓ **Correct**: 35

× **Incorrect**: 135

**Average Score**: 20.59 %



Question 172 of 329

Question Difficulty: Average

Mr. X is complaining of intensely itching lesions on his elbows which appeared 4 days ago. He had a long history of chronic diarrheal illness.

Examination shows the following image with erythematous, urticarial papules with vesicles.

What is the most likely diagnosis?

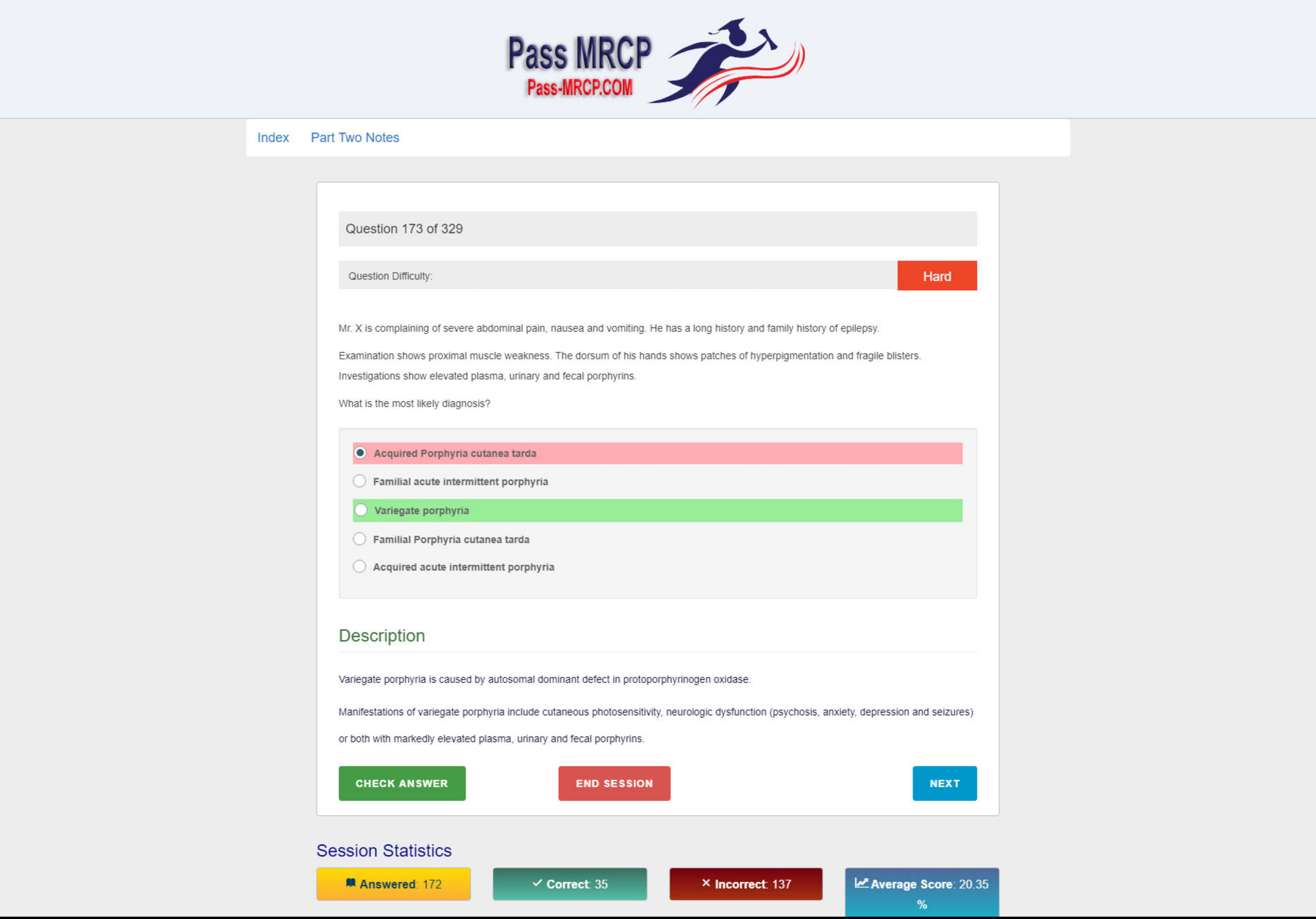
○ Dermatitis herpetiformis
○ Bullous Pemphigoid
● Lichen planus
○ Scabies
○ Chronic plaque psoriasis

## Description

Dermatitis herpetiformis (DH) is an autoimmune blistering disorder associated with a gluten-sensitive enteropathy (celiac disease).

The main lesions are grouped excoriations of erythematous, urticarial plaques or papules with vesicles. The classic location is on the extensor surfaces of the elbows, knees, buttocks, and back.

## Session Statistics



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Question 173 of 329

Question Difficulty: **Hard**

Mr. X is complaining of severe abdominal pain, nausea and vomiting. He has a long history and family history of epilepsy.

Examination shows proximal muscle weakness. The dorsum of his hands shows patches of hyperpigmentation and fragile blisters. Investigations show elevated plasma, urinary and fecal porphyrins.

What is the most likely diagnosis?

- ● **Acquired Porphyria cutanea tarda**
- ○ **Familial acute intermittent porphyria**
- ○ **Variegate porphyria**
- ○ **Familial Porphyria cutanea tarda**
- ○ **Acquired acute intermittent porphyria**

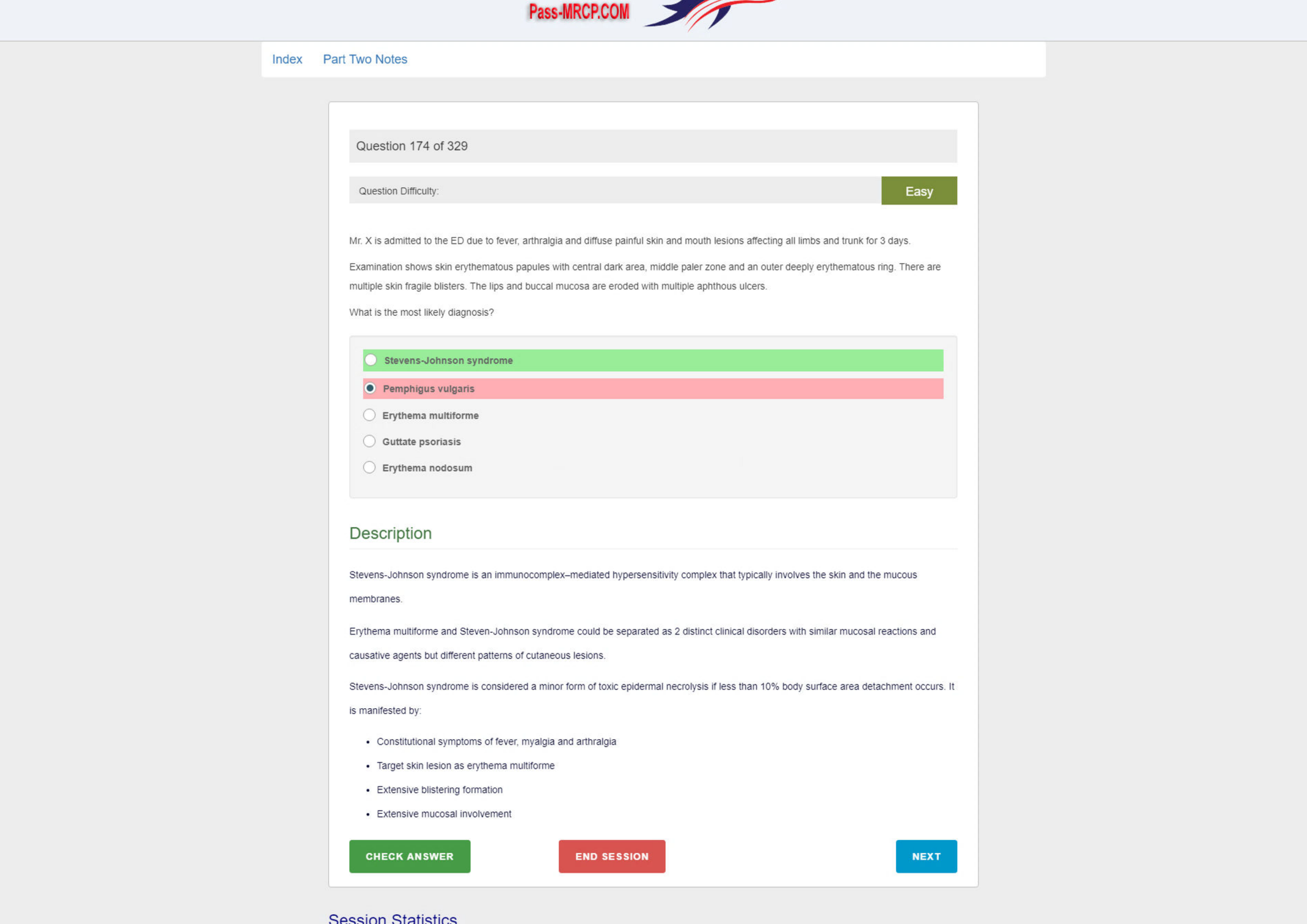
## Description

Variegate porphyria is caused by autosomal dominant defect in protoporphyrinogen oxidase.

Manifestations of variegate porphyria include cutaneous photosensitivity, neurologic dysfunction (psychosis, anxiety, depression and seizures) or both with markedly elevated plasma, urinary and fecal porphyrins.

Session Statistics

**Answered**: 172
✓ **Correct**: 35
× **Incorrect**: 137
**Average Score**: 20.35 %



Question 174 of 329

Question Difficulty: Easy

Mr. X is admitted to the ED due to fever, arthralgia and diffuse painful skin and mouth lesions affecting all limbs and trunk for 3 days.

Examination shows skin erythematous papules with central dark area, middle paler zone and an outer deeply erythematous ring. There are multiple skin fragile blisters. The lips and buccal mucosa are eroded with multiple aphthous ulcers.

What is the most likely diagnosis?

○ **Stevens-Johnson syndrome**
● **Pemphigus vulgaris**
○ **Erythema multiforme**
○ **Guttate psoriasis**
○ **Erythema nodosum**

## Description

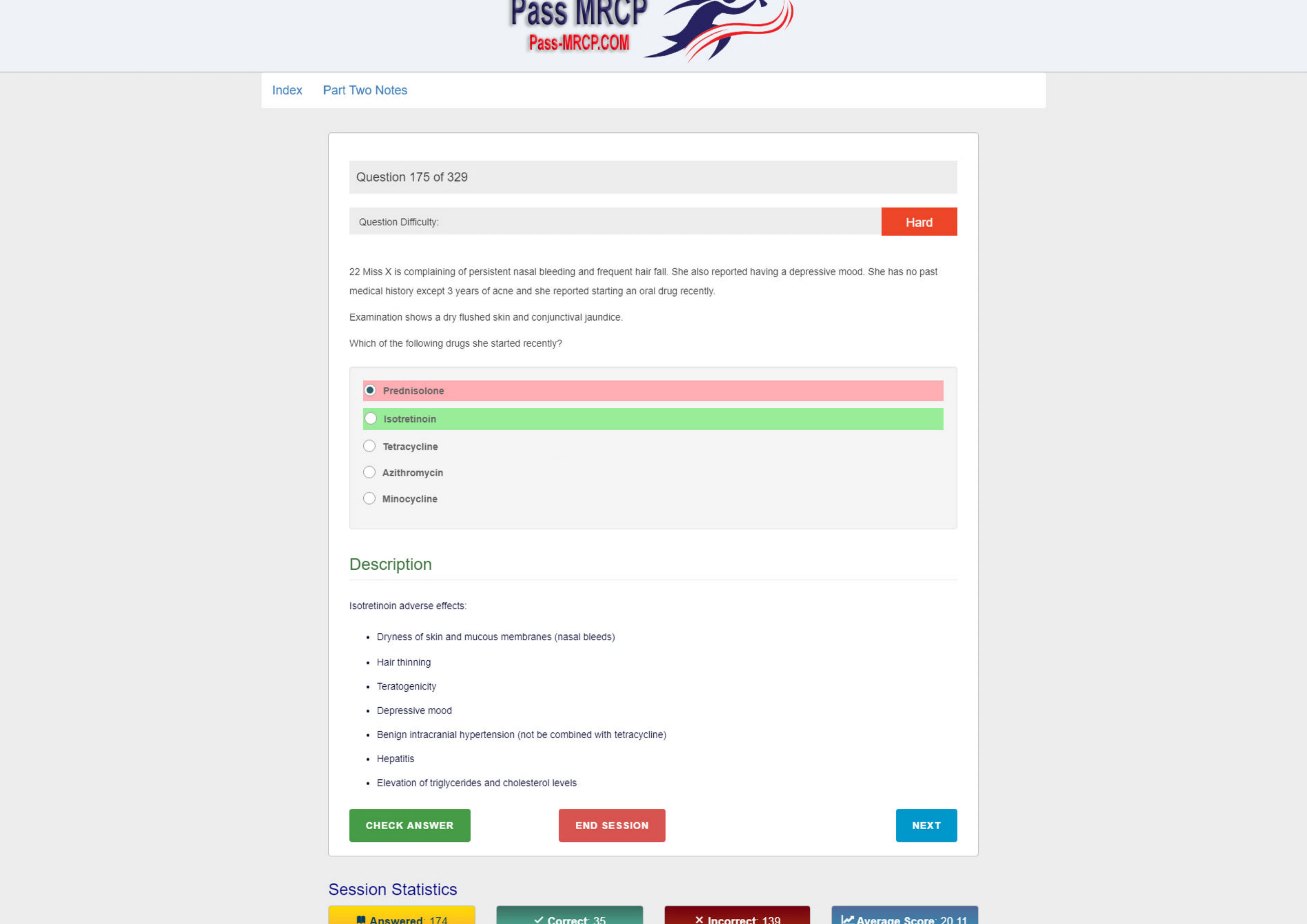
Stevens-Johnson syndrome is an immunocomplex–mediated hypersensitivity complex that typically involves the skin and the mucous membranes.

Erythema multiforme and Steven-Johnson syndrome could be separated as 2 distinct clinical disorders with similar mucosal reactions and causative agents but different patterns of cutaneous lesions.

Stevens-Johnson syndrome is considered a minor form of toxic epidermal necrolysis if less than 10% body surface area detachment occurs. It is manifested by:

- Constitutional symptoms of fever, myalgia and arthralgia
- Target skin lesion as erythema multiforme
- Extensive blistering formation
- Extensive mucosal involvement

Session Statistics



Question 175 of 329

Question Difficulty: Hard

22 Miss X is complaining of persistent nasal bleeding and frequent hair fall. She also reported having a depressive mood. She has no past medical history except 3 years of acne and she reported starting an oral drug recently.

Examination shows a dry flushed skin and conjunctival jaundice.

Which of the following drugs she started recently?

● Prednisolone
○ Isotretinoin
○ Tetracycline
○ Azithromycin
○ Minocycline

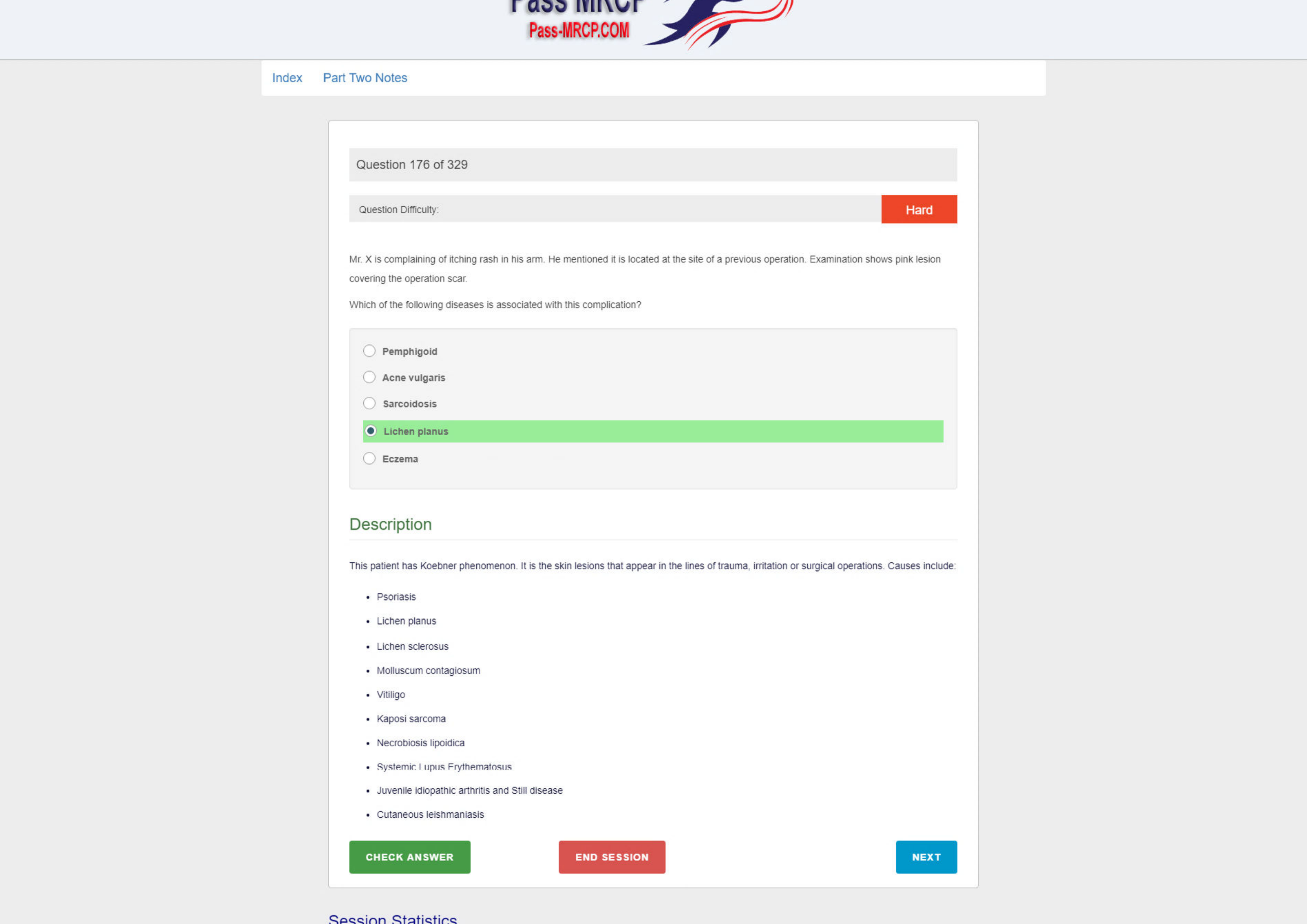
## Description

Isotretinoin adverse effects:

- Dryness of skin and mucous membranes (nasal bleeds)
- Hair thinning
- Teratogenicity
- Depressive mood
- Benign intracranial hypertension (not be combined with tetracycline)
- Hepatitis
- Elevation of triglycerides and cholesterol levels

## Session Statistics

Answered: 174
✓ Correct: 35
✕ Incorrect: 139
Average Score: 20.11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Question Difficulty: Hard

Mr. X is complaining of itching rash in his arm. He mentioned it is located at the site of a previous operation. Examination shows pink lesion covering the operation scar.

Which of the following diseases is associated with this complication?

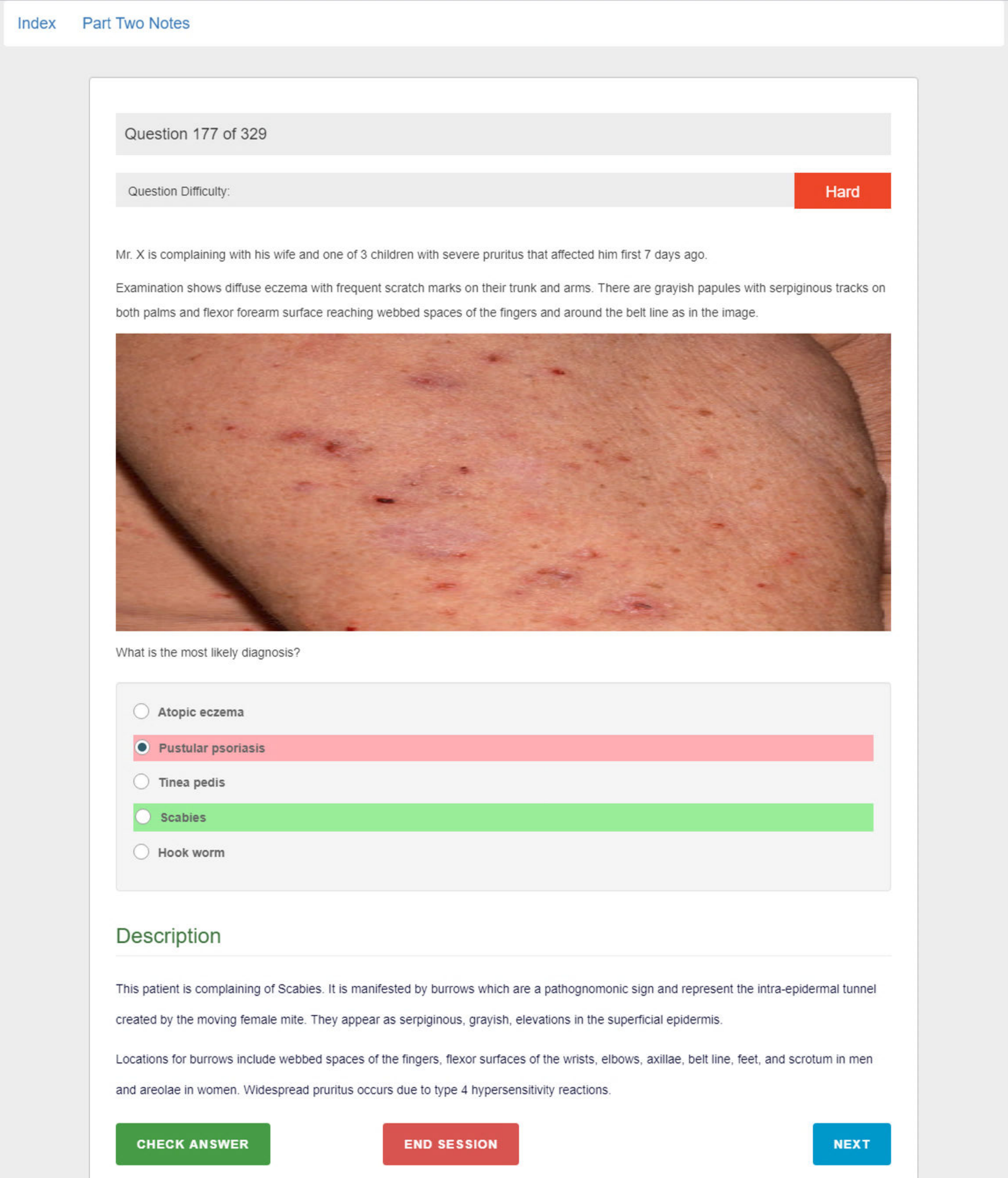
○ **Pemphigoid**
○ **Acne vulgaris**
○ **Sarcoidosis**
● **Lichen planus**
○ **Eczema**

## Description

This patient has Koebner phenomenon. It is the skin lesions that appear in the lines of trauma, irritation or surgical operations. Causes include:

- Psoriasis
- Lichen planus
- Lichen sclerosus
- Molluscum contagiosum
- Vitiligo
- Kaposi sarcoma
- Necrobiosis lipoidica
- Systemic Lupus Erythematosus
- Juvenile idiopathic arthritis and Still disease
- Cutaneous leishmaniasis

CHECK ANSWER
END SESSION
NEXT
Session Statistics



Question 177 of 329

Question Difficulty: Hard

Mr. X is complaining with his wife and one of 3 children with severe pruritus that affected him first 7 days ago.

Examination shows diffuse eczema with frequent scratch marks on their trunk and arms. There are grayish papules with serpiginous tracks on both palms and flexor forearm surface reaching webbed spaces of the fingers and around the belt line as in the image.

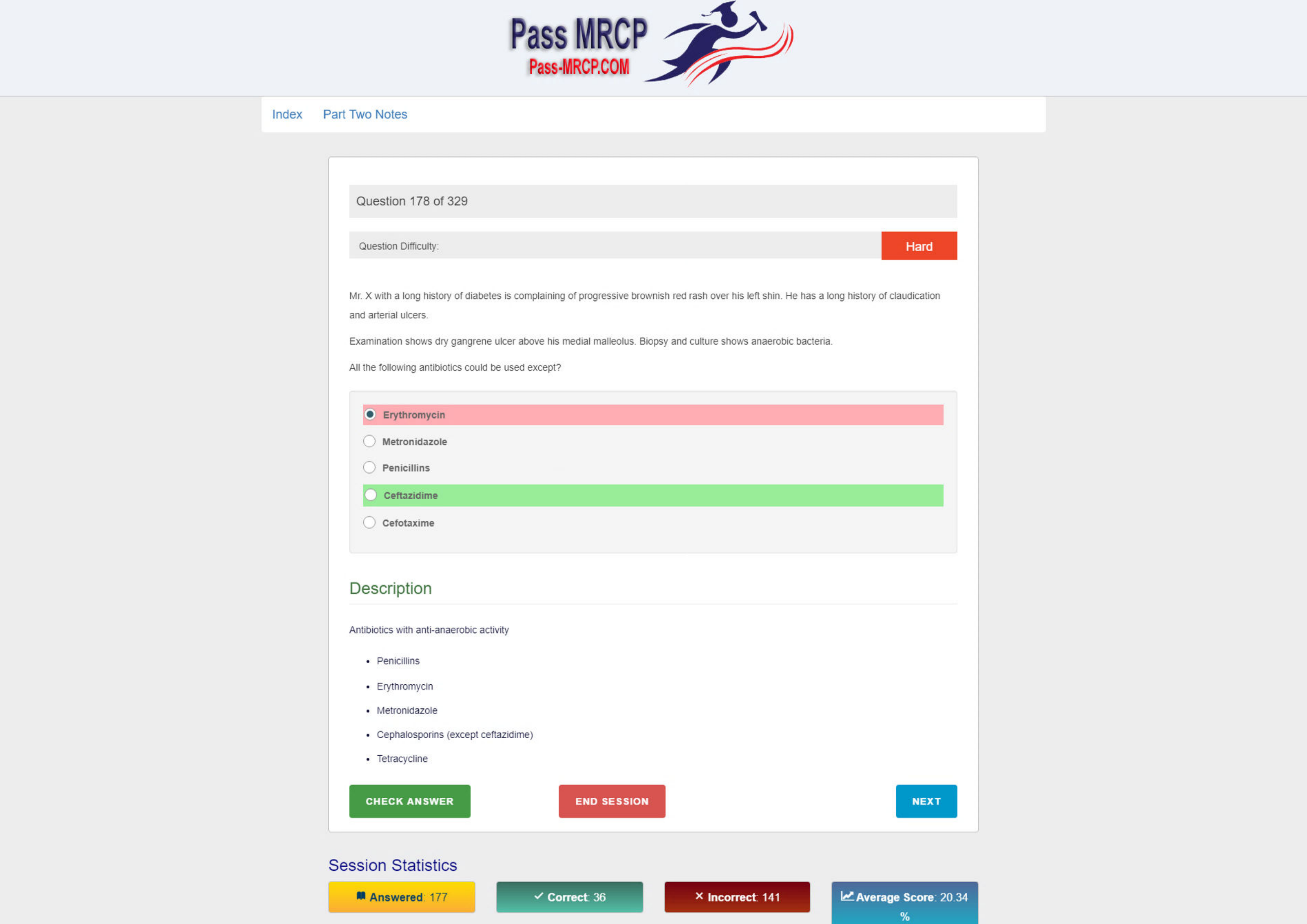
What is the most likely diagnosis?

- ○ **Atopic eczema**
- ● **Pustular psoriasis**
- ○ **Tinea pedis**
- ○ **Scabies**
- ○ **Hook worm**

## Description

This patient is complaining of Scabies. It is manifested by burrows which are a pathognomonic sign and represent the intra-epidermal tunnel created by the moving female mite. They appear as serpiginous, grayish, elevations in the superficial epidermis.

Locations for burrows include webbed spaces of the fingers, flexor surfaces of the wrists, elbows, axillae, belt line, feet, and scrotum in men and areolae in women. Widespread pruritus occurs due to type 4 hypersensitivity reactions.



Question 178 of 329

Question Difficulty: Hard

Mr. X with a long history of diabetes is complaining of progressive brownish red rash over his left shin. He has a long history of claudication and arterial ulcers.

Examination shows dry gangrene ulcer above his medial malleolus. Biopsy and culture shows anaerobic bacteria.

All the following antibiotics could be used except?

● **Erythromycin**
○ **Metronidazole**
○ **Penicillins**
○ **Ceftazidime**
○ **Cefotaxime**

## Description

Antibiotics with anti-anaerobic activity

- Penicillins
- Erythromycin
- Metronidazole
- Cephalosporins (except ceftazidime)
- Tetracycline

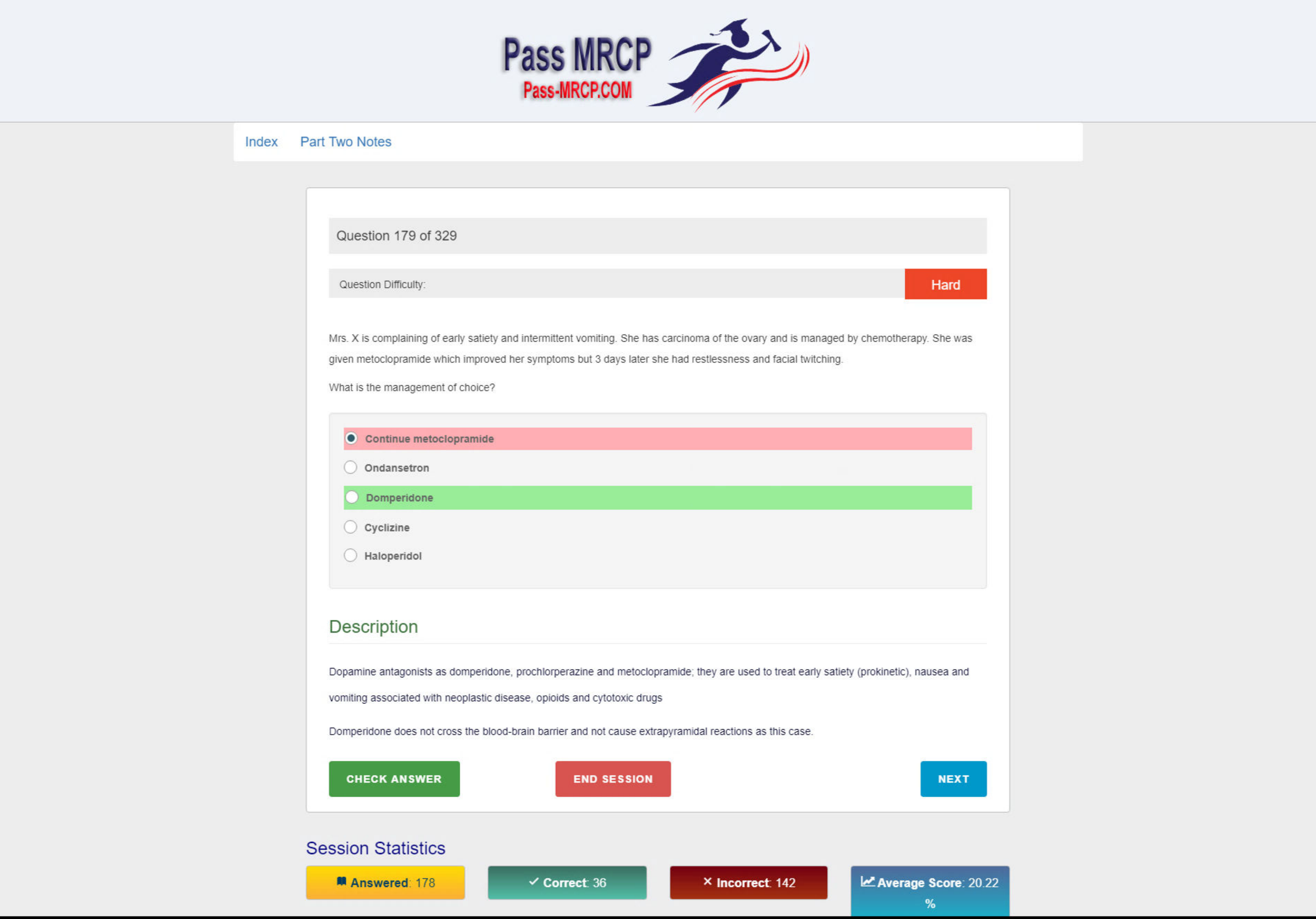
## Session Statistics

**Answered**: 177

✓ **Correct**: 36

✕ **Incorrect**: 141

**Average Score**: 20.34 %



Question 179 of 329

Question Difficulty: Hard

Mrs. X is complaining of early satiety and intermittent vomiting. She has carcinoma of the ovary and is managed by chemotherapy. She was given metoclopramide which improved her symptoms but 3 days later she had restlessness and facial twitching.

What is the management of choice?

- ● **Continue metoclopramide**
- ○ **Ondansetron**
- ○ **Domperidone**
- ○ **Cyclizine**
- ○ **Haloperidol**

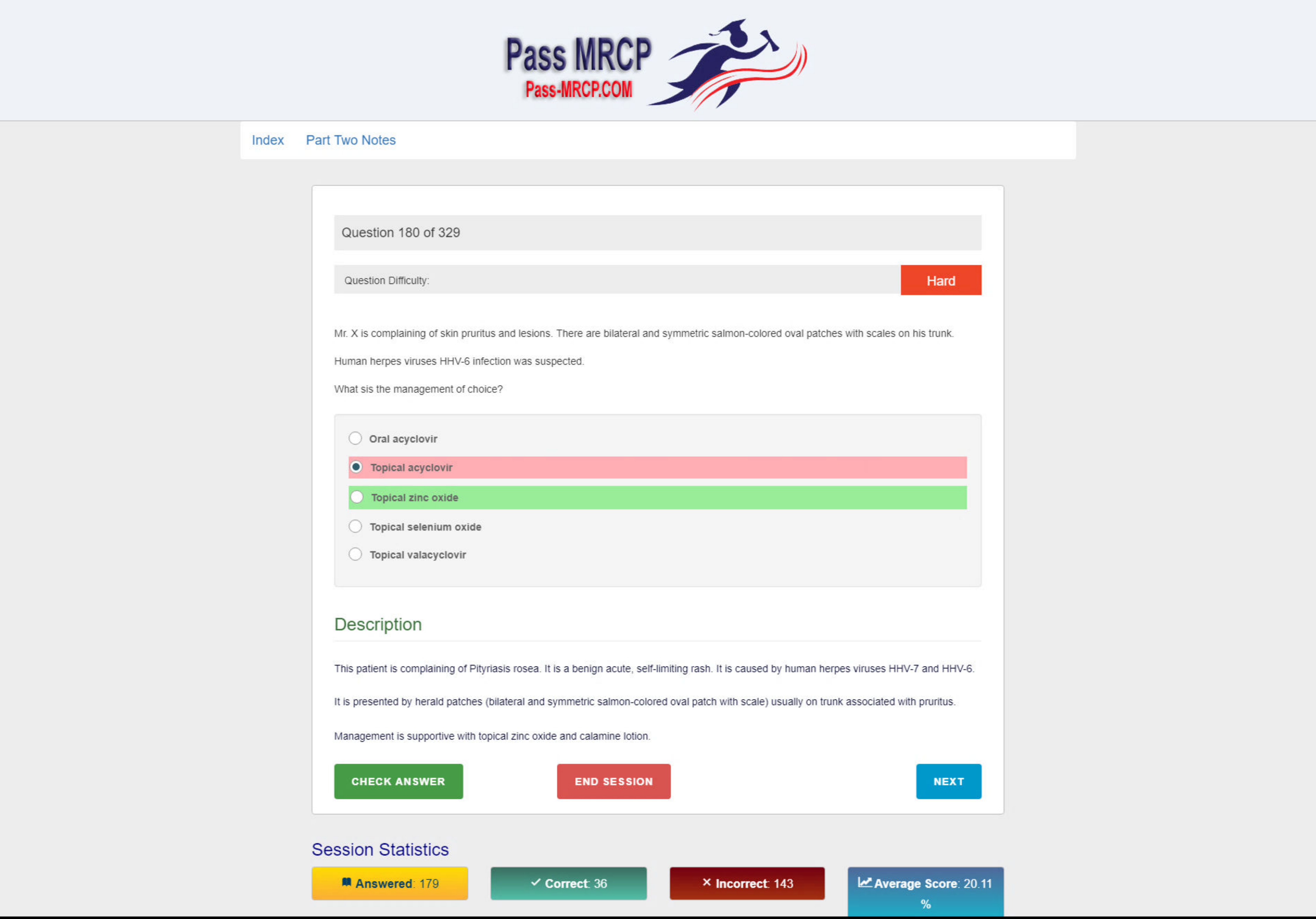
## Description

Dopamine antagonists as domperidone, prochlorperazine and metoclopramide; they are used to treat early satiety (prokinetic), nausea and vomiting associated with neoplastic disease, opioids and cytotoxic drugs

Domperidone does not cross the blood-brain barrier and not cause extrapyramidal reactions as this case.

## Session Statistics

**Answered**: 178
**Correct**: 36
**Incorrect**: 142
**Average Score**: 20.22 %



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Question Difficulty: Hard

Mr. X is complaining of skin pruritus and lesions. There are bilateral and symmetric salmon-colored oval patches with scales on his trunk.

Human herpes viruses HHV-6 infection was suspected.

What sis the management of choice?

- ○ **Oral acyclovir**
- ● **Topical acyclovir**
- ○ **Topical zinc oxide**
- ○ **Topical selenium oxide**
- ○ **Topical valacyclovir**

## Description

This patient is complaining of Pityriasis rosea. It is a benign acute, self-limiting rash. It is caused by human herpes viruses HHV-7 and HHV-6.

It is presented by herald patches (bilateral and symmetric salmon-colored oval patch with scale) usually on trunk associated with pruritus.

Management is supportive with topical zinc oxide and calamine lotion.

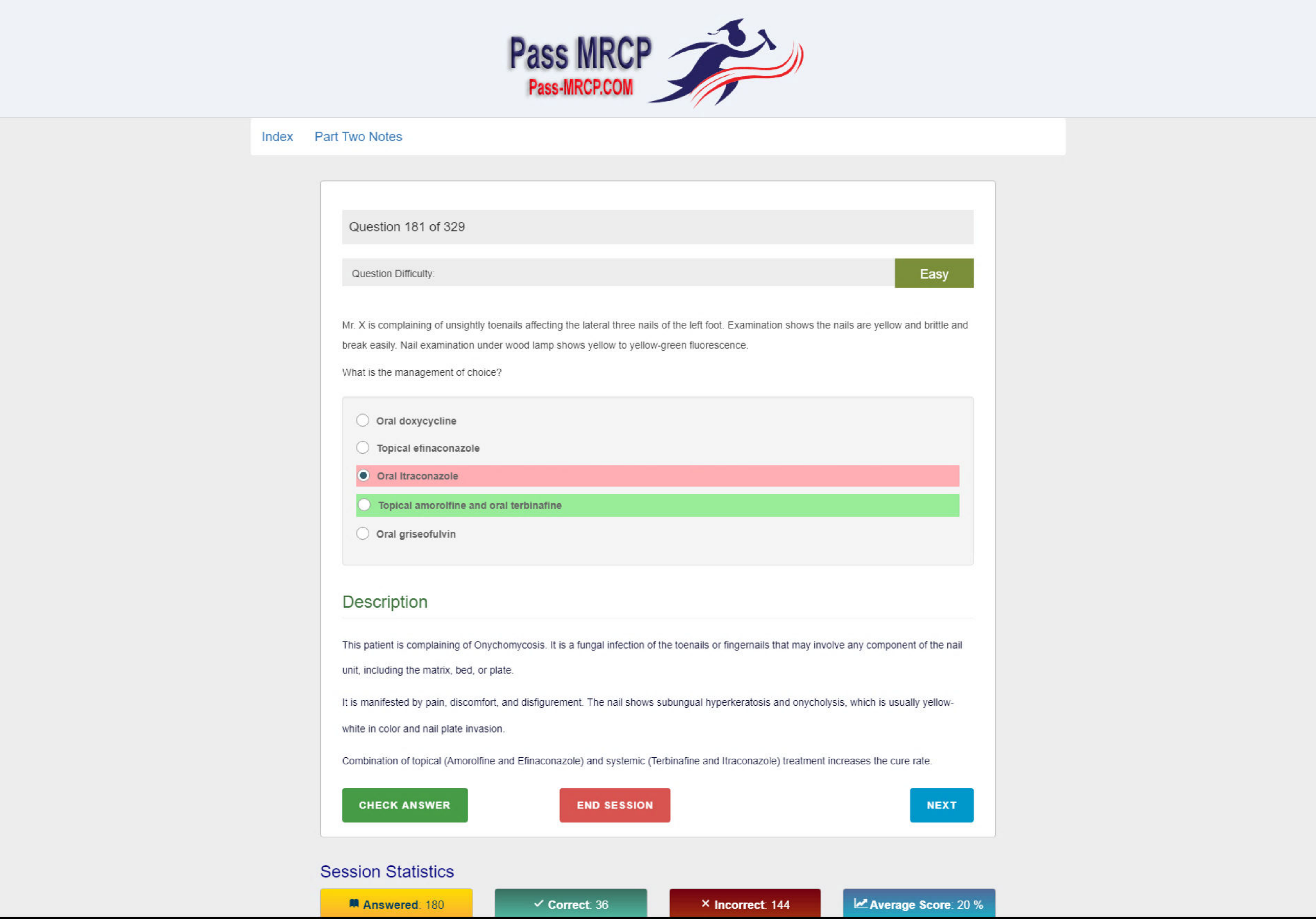
## Session Statistics

**Answered**: 179

✓ **Correct**: 36

× **Incorrect**: 143

**Average Score**: 20.11 %



Question 181 of 329

Question Difficulty: Easy

Mr. X is complaining of unsightly toenails affecting the lateral three nails of the left foot. Examination shows the nails are yellow and brittle and break easily. Nail examination under wood lamp shows yellow to yellow-green fluorescence.

What is the management of choice?

- ○ Oral doxycycline
- ○ Topical efinaconazole
- ● Oral Itraconazole
- ○ Topical amorolfine and oral terbinafine
- ○ Oral griseofulvin

## Description

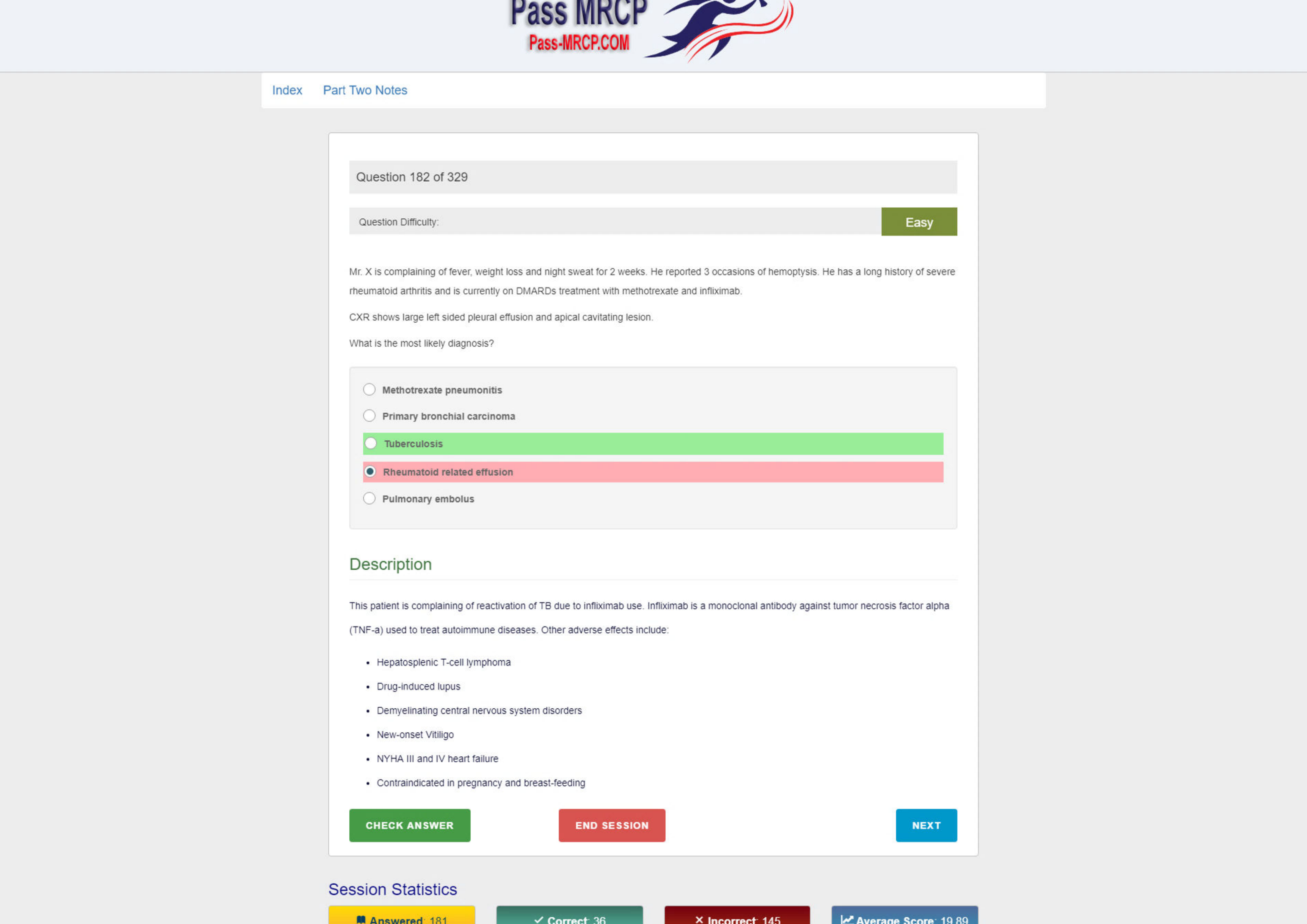
This patient is complaining of Onychomycosis. It is a fungal infection of the toenails or fingernails that may involve any component of the nail unit, including the matrix, bed, or plate.

It is manifested by pain, discomfort, and disfigurement. The nail shows subungual hyperkeratosis and onycholysis, which is usually yellow-white in color and nail plate invasion.

Combination of topical (Amorolfine and Efinaconazole) and systemic (Terbinafine and Itraconazole) treatment increases the cure rate.

Session Statistics

Answered: 180
✓ Correct: 36
✕ Incorrect: 144
Average Score: 20 %



Question 182 of 329

Question Difficulty: Easy

Mr. X is complaining of fever, weight loss and night sweat for 2 weeks. He reported 3 occasions of hemoptysis. He has a long history of severe rheumatoid arthritis and is currently on DMARDs treatment with methotrexate and infliximab.

CXR shows large left sided pleural effusion and apical cavitating lesion.

What is the most likely diagnosis?

○ **Methotrexate pneumonitis**
○ **Primary bronchial carcinoma**
○ **Tuberculosis** 🟩
● **Rheumatoid related effusion** 🟥
○ **Pulmonary embolus**

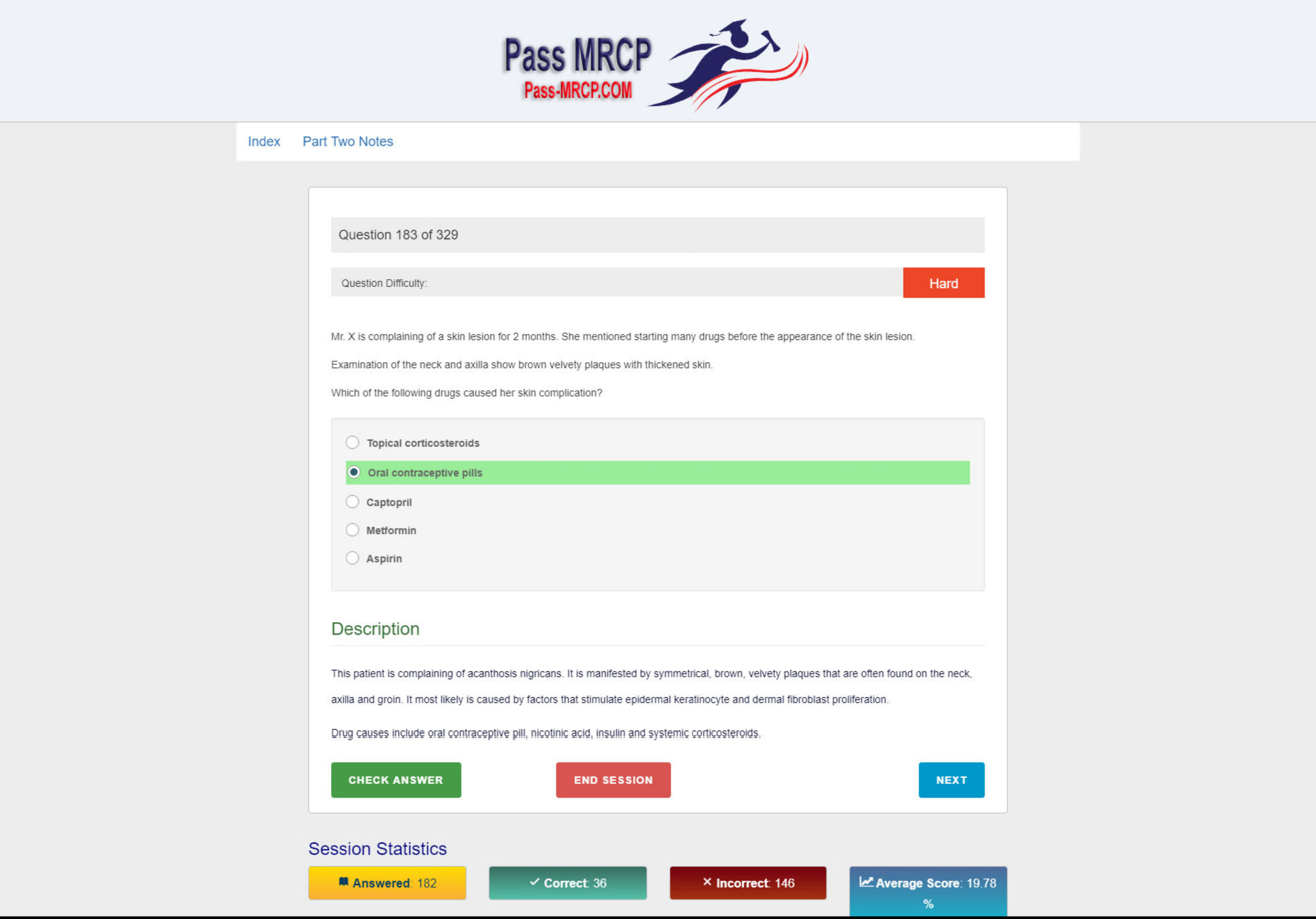
## Description

This patient is complaining of reactivation of TB due to infliximab use. Infliximab is a monoclonal antibody against tumor necrosis factor alpha (TNF-a) used to treat autoimmune diseases. Other adverse effects include:

- Hepatosplenic T-cell lymphoma
- Drug-induced lupus
- Demyelinating central nervous system disorders
- New-onset Vitiligo
- NYHA III and IV heart failure
- Contraindicated in pregnancy and breast-feeding

## Session Statistics

Answered: 181
✓ Correct: 36
✕ Incorrect: 145
Average Score: 19.89



Question 183 of 329

Question Difficulty: **Hard**

Mr. X is complaining of a skin lesion for 2 months. She mentioned starting many drugs before the appearance of the skin lesion.

Examination of the neck and axilla show brown velvety plaques with thickened skin.

Which of the following drugs caused her skin complication?

- ○ **Topical corticosteroids**
- ● **Oral contraceptive pills**
- ○ **Captopril**
- ○ **Metformin**
- ○ **Aspirin**

## Description

This patient is complaining of acanthosis nigricans. It is manifested by symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin. It most likely is caused by factors that stimulate epidermal keratinocyte and dermal fibroblast proliferation.

Drug causes include oral contraceptive pill, nicotinic acid, insulin and systemic corticosteroids.

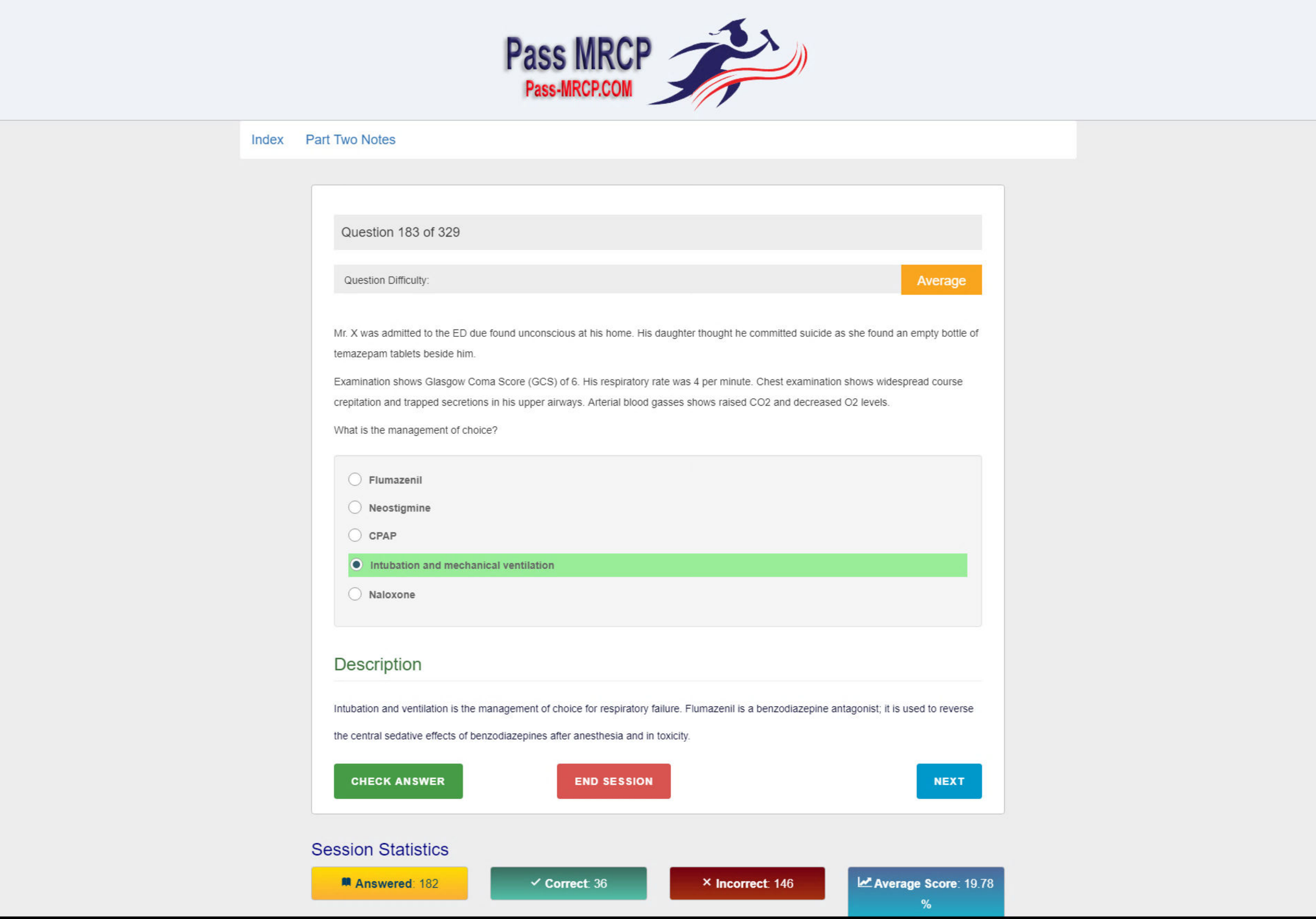
## Session Statistics

**Answered**: 182

✓ **Correct**: 36

✕ **Incorrect**: 146

**Average Score**: 19.78 %



Question 183 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due found unconscious at his home. His daughter thought he committed suicide as she found an empty bottle of temazepam tablets beside him.

Examination shows Glasgow Coma Score (GCS) of 6. His respiratory rate was 4 per minute. Chest examination shows widespread course crepitation and trapped secretions in his upper airways. Arterial blood gasses shows raised CO2 and decreased O2 levels.

What is the management of choice?

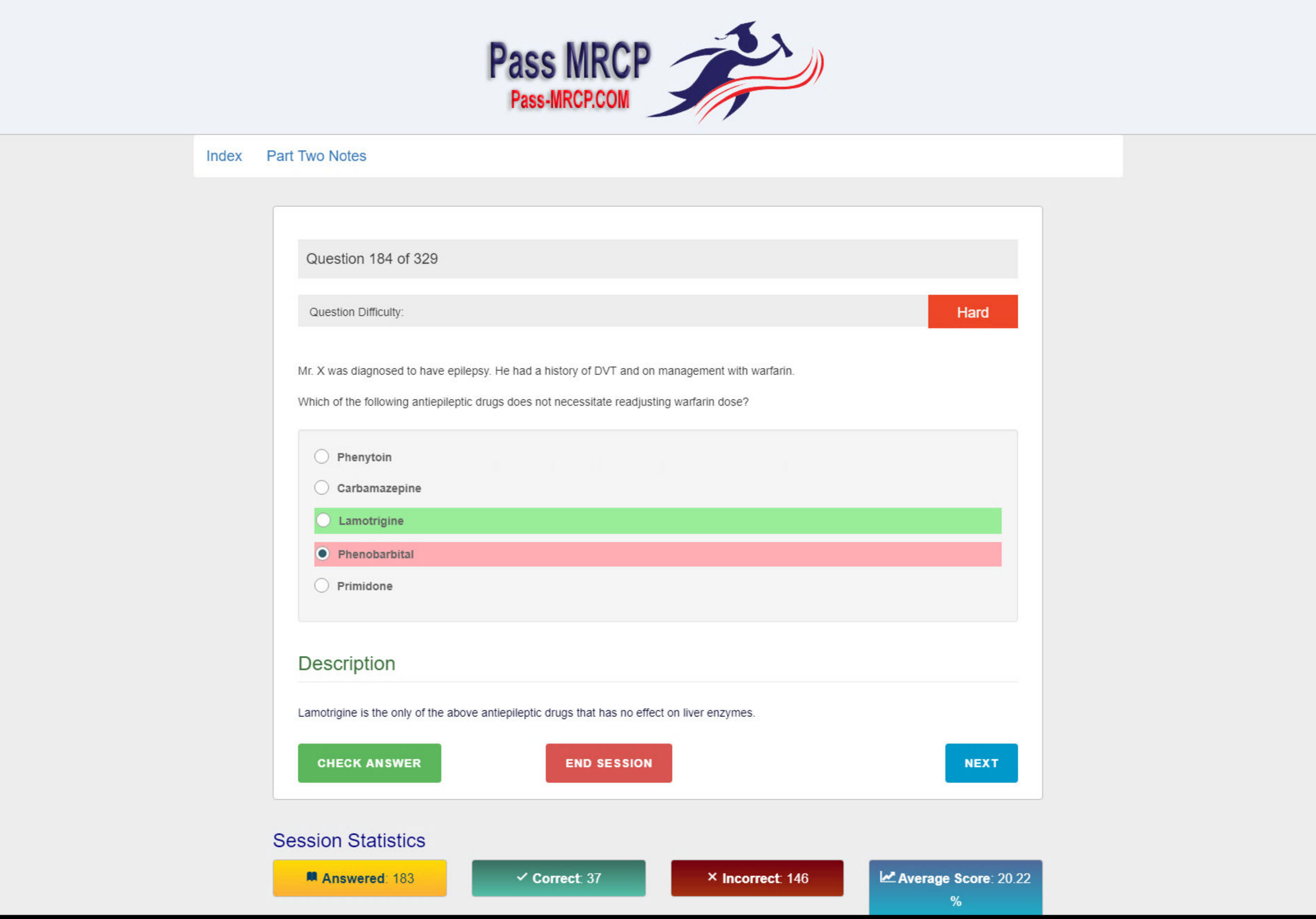
- ○ Flumazenil
- ○ Neostigmine
- ○ CPAP
- ● Intubation and mechanical ventilation
- ○ Naloxone

## Description

Intubation and ventilation is the management of choice for respiratory failure. Flumazenil is a benzodiazepine antagonist; it is used to reverse the central sedative effects of benzodiazepines after anesthesia and in toxicity.

Session Statistics

Answered: 182
Correct: 36
Incorrect: 146
Average Score: 19.78 %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Question Difficulty: Hard

Mr. X was diagnosed to have epilepsy. He had a history of DVT and on management with warfarin.

Which of the following antiepileptic drugs does not necessitate readjusting warfarin dose?

- ○ Phenytoin
- ○ Carbamazepine
- ○ Lamotrigine
- ● Phenobarbital
- ○ Primidone

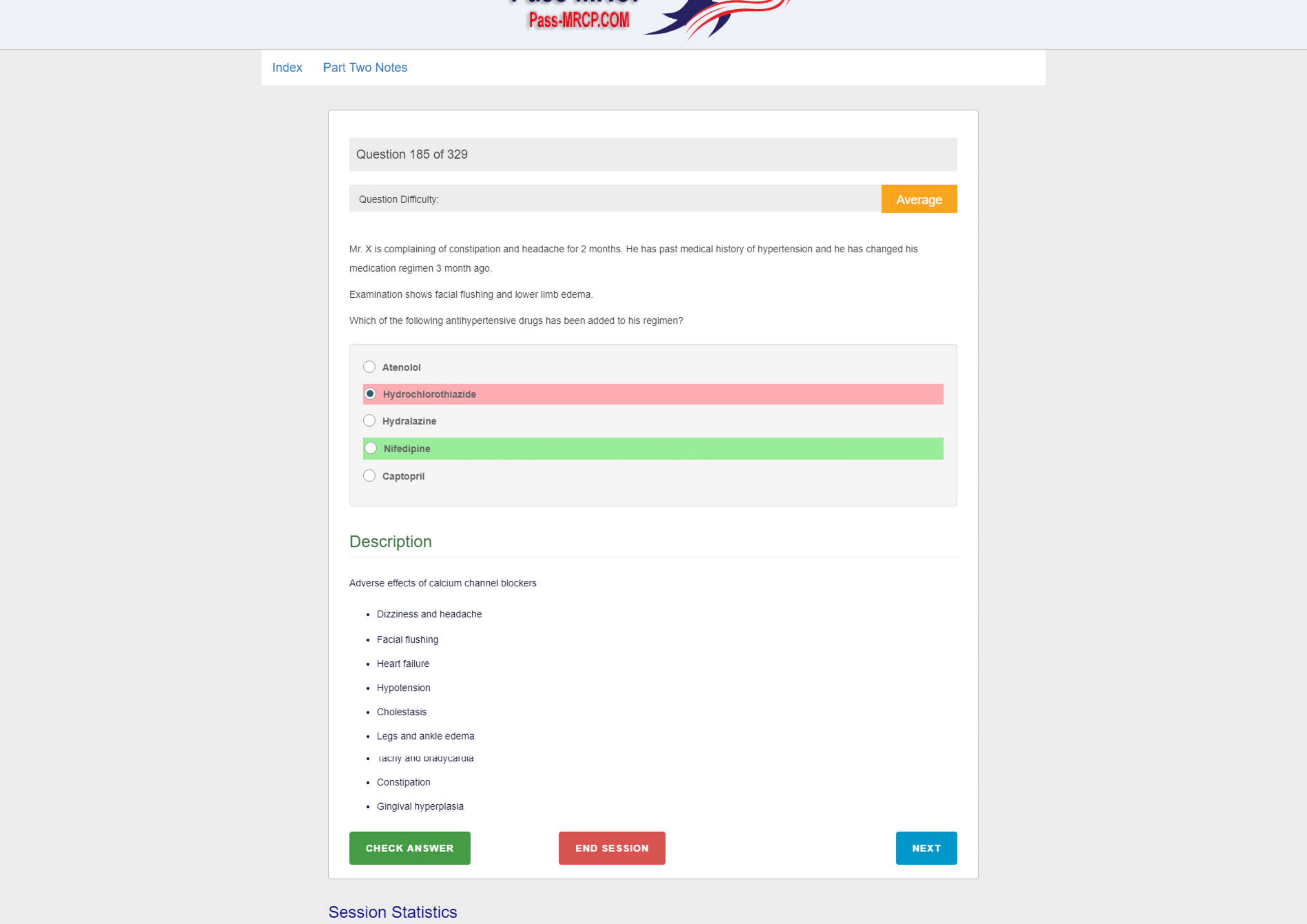
## Description

Lamotrigine is the only of the above antiepileptic drugs that has no effect on liver enzymes.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 183
✓ Correct: 37
✕ Incorrect: 146
Average Score: 20.22 %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Part Two Notes

Question 185 of 329

Question Difficulty: Average

Mr. X is complaining of constipation and headache for 2 months. He has past medical history of hypertension and he has changed his medication regimen 3 month ago.

Examination shows facial flushing and lower limb edema.

Which of the following antihypertensive drugs has been added to his regimen?

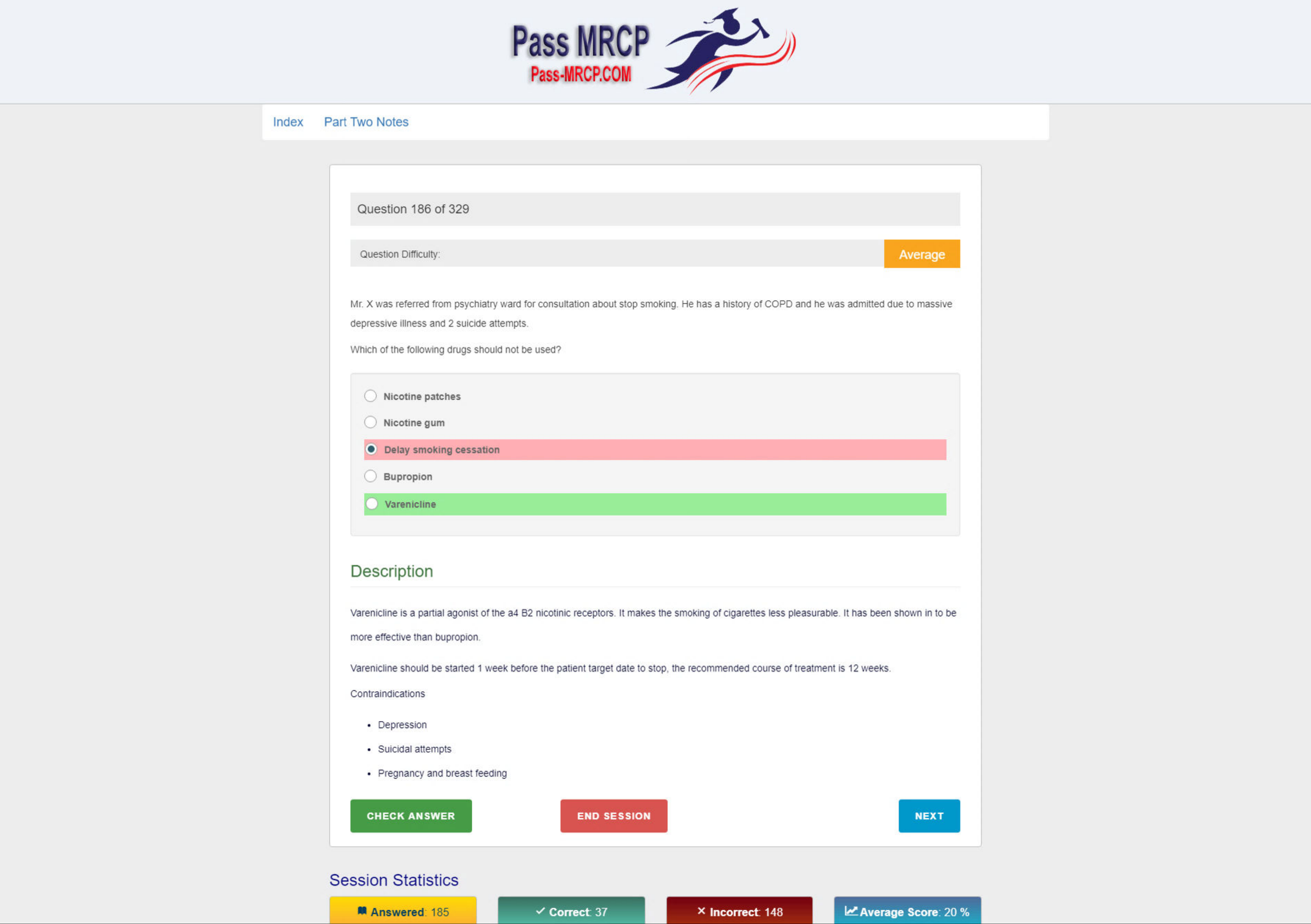
○ **Atenolol**
● **Hydrochlorothiazide**
○ **Hydralazine**
○ **Nifedipine**
○ **Captopril**

## Description

Adverse effects of calcium channel blockers

- Dizziness and headache
- Facial flushing
- Heart failure
- Hypotension
- Cholestasis
- Legs and ankle edema
- Tachy and bradycardia
- Constipation
- Gingival hyperplasia

CHECK ANSWER
END SESSION
NEXT
Session Statistics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Part Two Notes

Question 186 of 329

Question Difficulty: Average

Mr. X was referred from psychiatry ward for consultation about stop smoking. He has a history of COPD and he was admitted due to massive depressive illness and 2 suicide attempts.

Which of the following drugs should not be used?

○ Nicotine patches
○ Nicotine gum
● Delay smoking cessation
○ Bupropion
○ Varenicline

## Description

Varenicline is a partial agonist of the a4 B2 nicotinic receptors. It makes the smoking of cigarettes less pleasurable. It has been shown in to be more effective than bupropion.

Varenicline should be started 1 week before the patient target date to stop, the recommended course of treatment is 12 weeks.

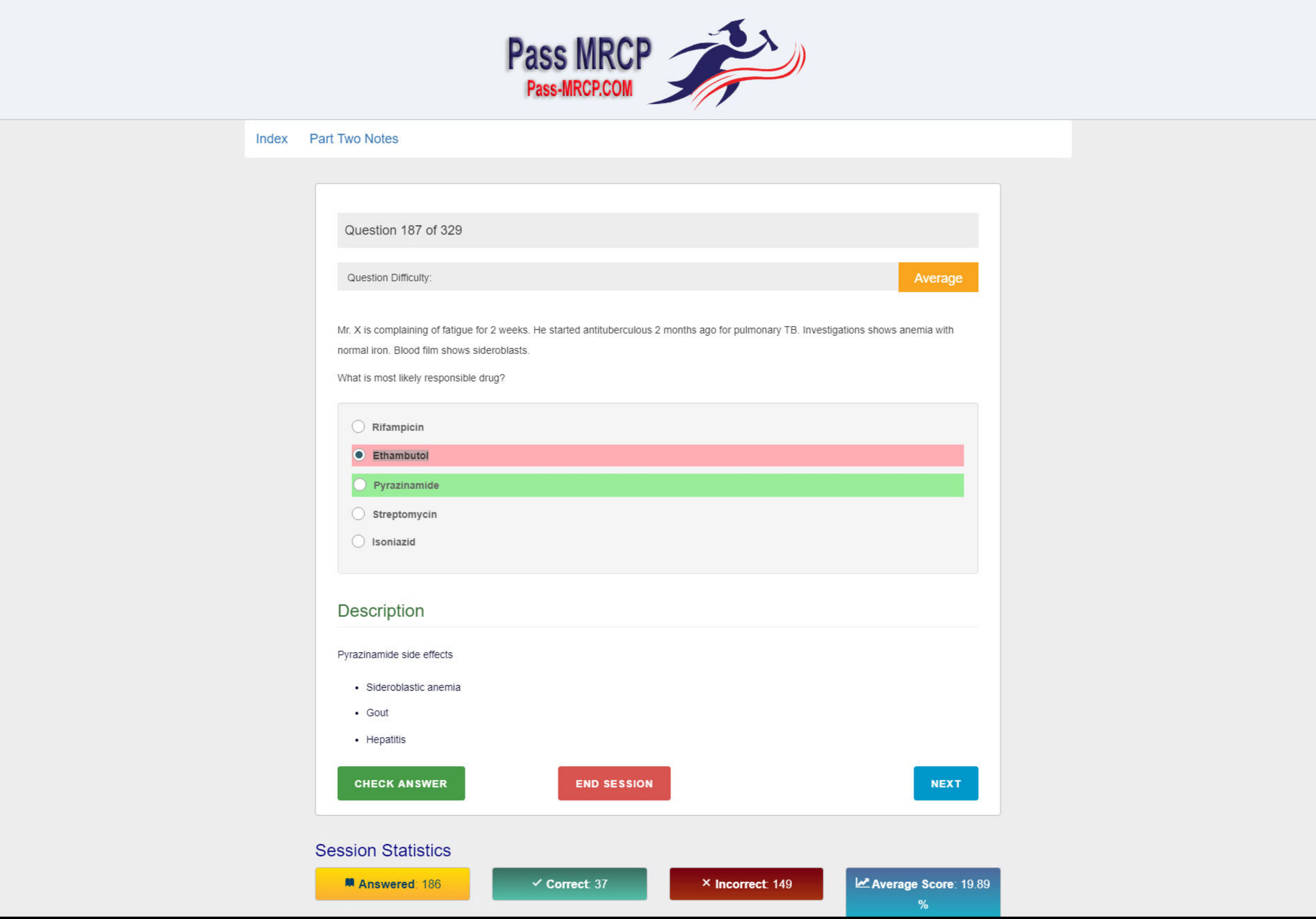
Contraindications

- Depression
- Suicidal attempts
- Pregnancy and breast feeding

CHECK ANSWER
END SESSION
NEXT

Session Statistics

Answered: 185
✓ Correct: 37
✕ Incorrect: 148
Average Score: 20 %



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Question 187 of 329

Question Difficulty: Average

Mr. X is complaining of fatigue for 2 weeks. He started antituberculous 2 months ago for pulmonary TB. Investigations shows anemia with normal iron. Blood film shows sideroblasts.

What is most likely responsible drug?

○ Rifampicin
● Ethambutol
○ Pyrazinamide
○ Streptomycin
○ Isoniazid

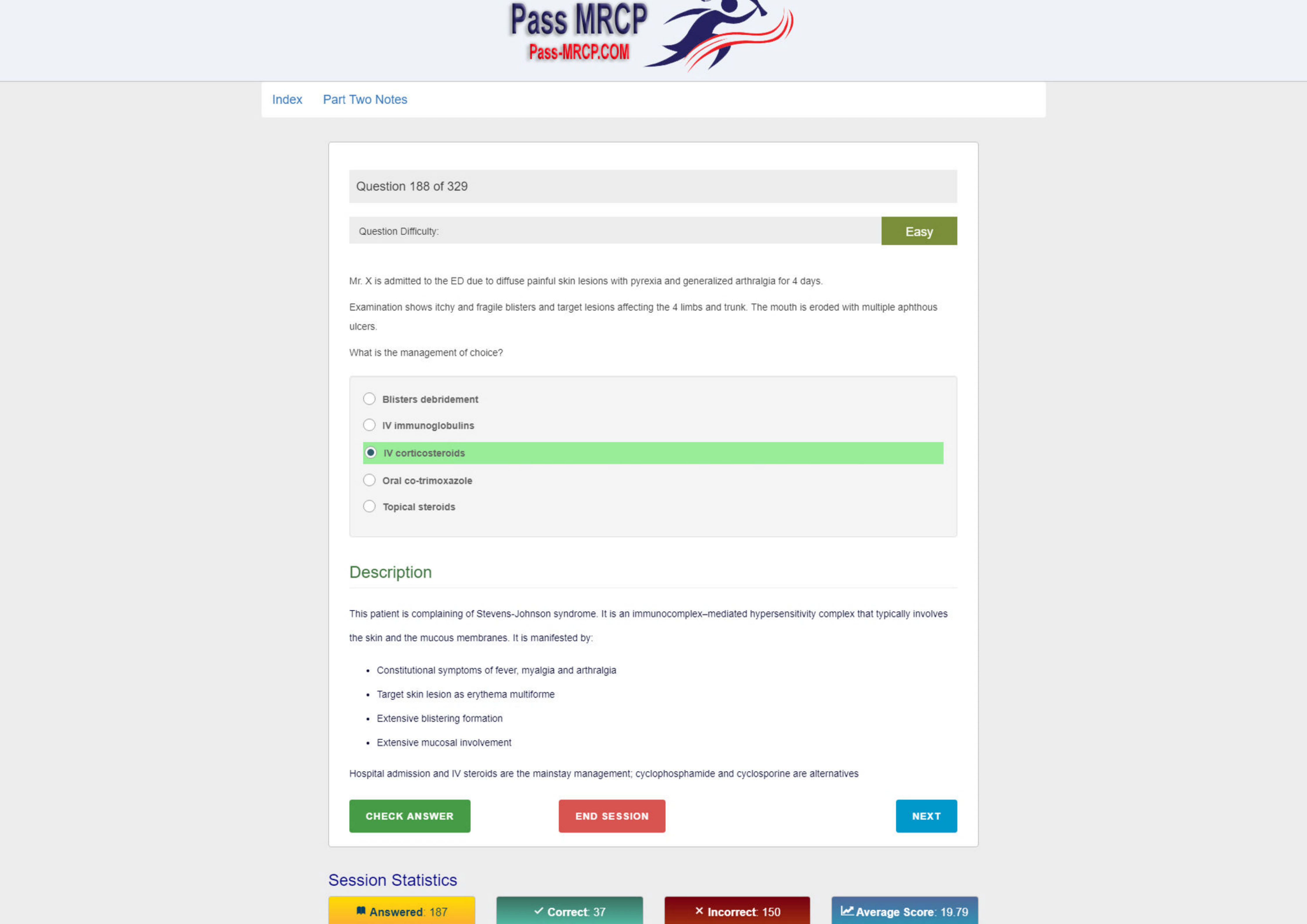
## Description

Pyrazinamide side effects

- Sideroblastic anemia
- Gout
- Hepatitis

## Session Statistics

Answered: 186
✓ Correct: 37
✕ Incorrect: 149
Average Score: 19.89 %



Question 188 of 329

Question Difficulty: **Easy**

Mr. X is admitted to the ED due to diffuse painful skin lesions with pyrexia and generalized arthralgia for 4 days.

Examination shows itchy and fragile blisters and target lesions affecting the 4 limbs and trunk. The mouth is eroded with multiple aphthous ulcers.

What is the management of choice?

○ **Blisters debridement**
○ **IV immunoglobulins**
● **IV corticosteroids**
○ **Oral co-trimoxazole**
○ **Topical steroids**

## Description

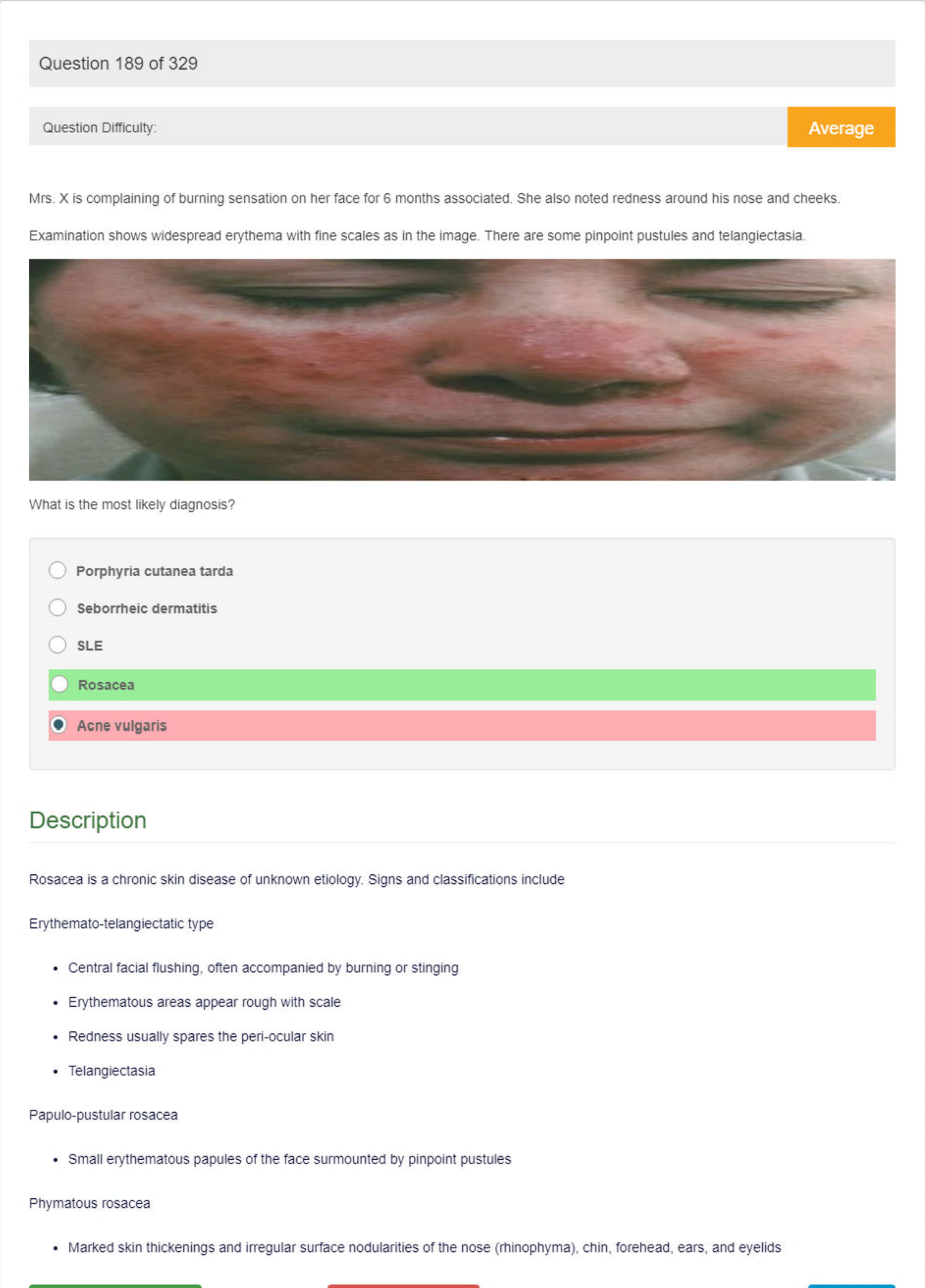
This patient is complaining of Stevens-Johnson syndrome. It is an immunocomplex–mediated hypersensitivity complex that typically involves the skin and the mucous membranes. It is manifested by:

- Constitutional symptoms of fever, myalgia and arthralgia
- Target skin lesion as erythema multiforme
- Extensive blistering formation
- Extensive mucosal involvement

Hospital admission and IV steroids are the mainstay management; cyclophosphamide and cyclosporine are alternatives

Session Statistics

**Answered**: 187
**Correct**: 37
**Incorrect**: 150
**Average Score**: 19.79



Question 189 of 329

Question Difficulty: Average

Mrs. X is complaining of burning sensation on her face for 6 months associated. She also noted redness around his nose and cheeks.

Examination shows widespread erythema with fine scales as in the image. There are some pinpoint pustules and telangiectasia.

What is the most likely diagnosis?

○ **Porphyria cutanea tarda**
○ **Seborrheic dermatitis**
○ **SLE**
○ **Rosacea**
● **Acne vulgaris**

## Description

Rosacea is a chronic skin disease of unknown etiology. Signs and classifications include

Erythemato-telangiectatic type

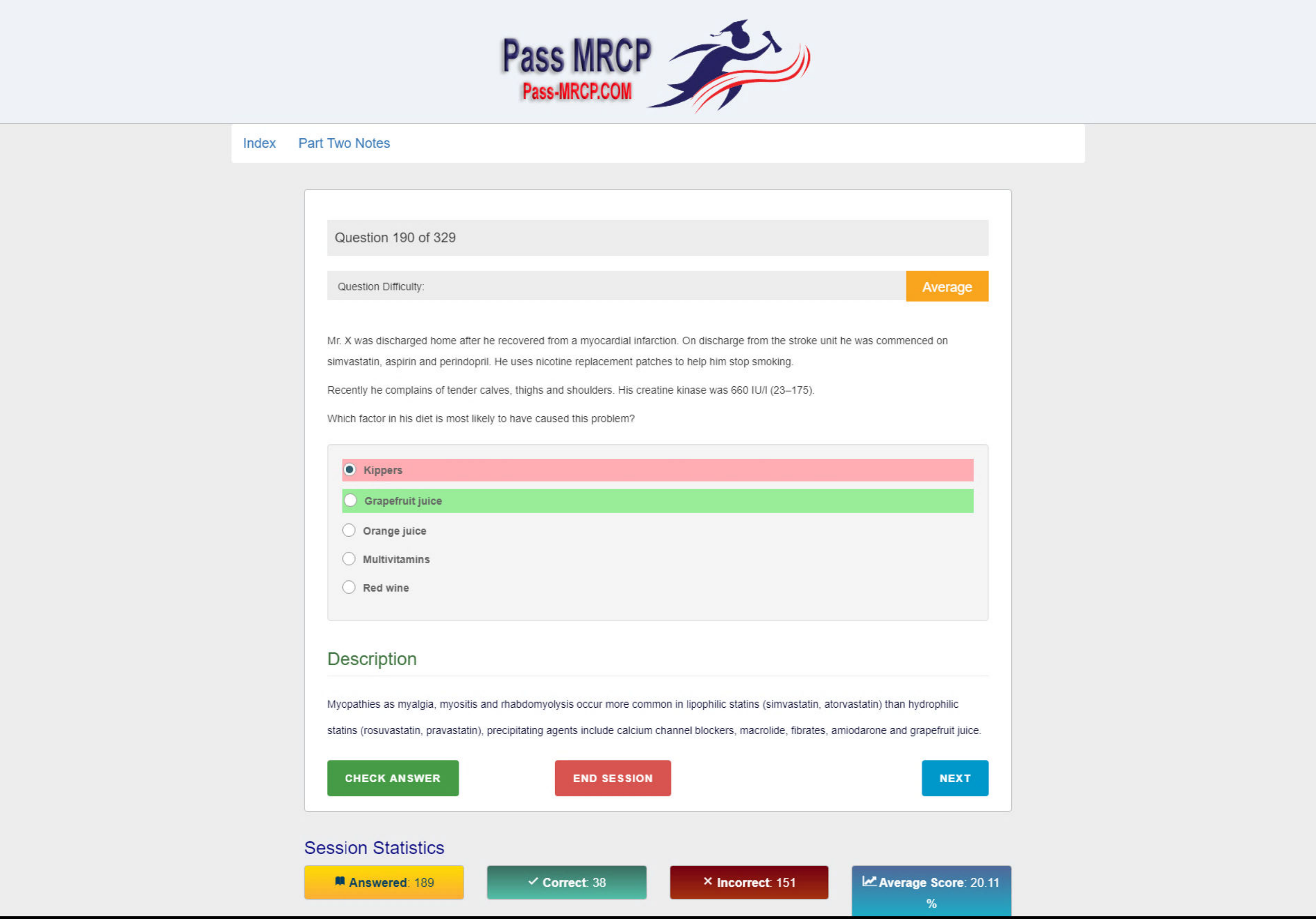
- Central facial flushing, often accompanied by burning or stinging
- Erythematous areas appear rough with scale
- Redness usually spares the peri-ocular skin
- Telangiectasia

Papulo-pustular rosacea

- Small erythematous papules of the face surmounted by pinpoint pustules

Phymatous rosacea

- Marked skin thickenings and irregular surface nodularities of the nose (rhinophyma), chin, forehead, ears, and eyelids



Question 190 of 329

Question Difficulty: Average

Mr. X was discharged home after he recovered from a myocardial infarction. On discharge from the stroke unit he was commenced on simvastatin, aspirin and perindopril. He uses nicotine replacement patches to help him stop smoking.

Recently he complains of tender calves, thighs and shoulders. His creatine kinase was 660 IU/l (23–175).

Which factor in his diet is most likely to have caused this problem?

- ● Kippers
- ○ Grapefruit juice
- ○ Orange juice
- ○ Multivitamins
- ○ Red wine

## Description

Myopathies as myalgia, myositis and rhabdomyolysis occur more common in lipophilic statins (simvastatin, atorvastatin) than hydrophilic statins (rosuvastatin, pravastatin), precipitating agents include calcium channel blockers, macrolide, fibrates, amiodarone and grapefruit juice.

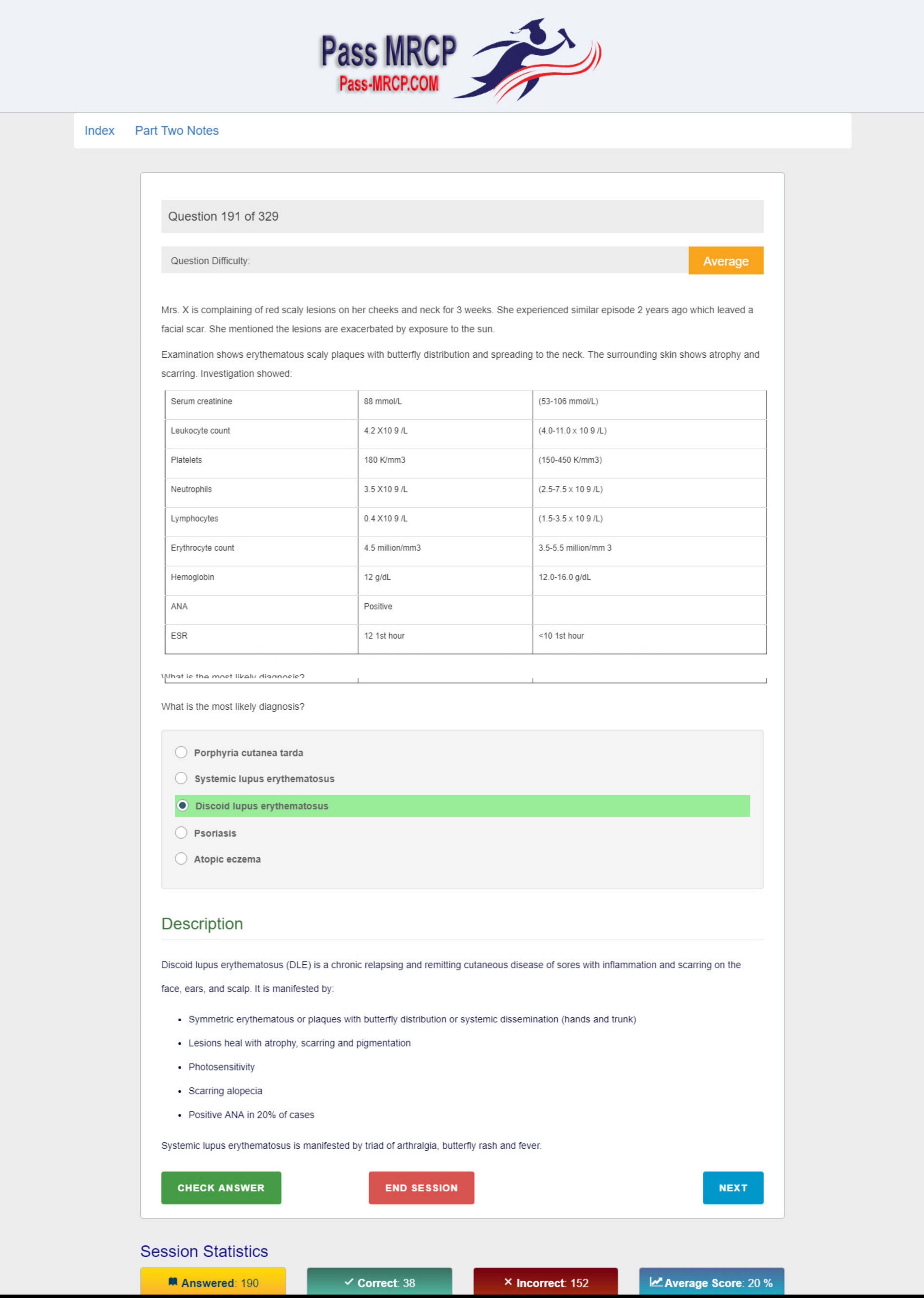
Session Statistics

Answered: 189

✓ Correct: 38

✕ Incorrect: 151

Average Score: 20.11 %



Question 191 of 329

Question Difficulty: **Average**

Mrs. X is complaining of red scaly lesions on her cheeks and neck for 3 weeks. She experienced similar episode 2 years ago which leaved a facial scar. She mentioned the lesions are exacerbated by exposure to the sun.

Examination shows erythematous scaly plaques with butterfly distribution and spreading to the neck. The surrounding skin shows atrophy and scarring. Investigation showed:

| | | |
|---|---|---|
| Serum creatinine | 88 mmol/L | (53-106 mmol/L) |
| Leukocyte count | 4.2 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Platelets | 180 K/mm3 | (150-450 K/mm3) |
| Neutrophils | 3.5 X10 9 /L | (2.5-7.5 x 10 9 /L) |
| Lymphocytes | 0.4 X10 9 /L | (1.5-3.5 x 10 9 /L) |
| Erythrocyte count | 4.5 million/mm3 | 3.5-5.5 million/mm 3 |
| Hemoglobin | 12 g/dL | 12.0-16.0 g/dL |
| ANA | Positive | |
| ESR | 12 1st hour | <10 1st hour |

What is the most likely diagnosis?

What is the most likely diagnosis?

○ **Porphyria cutanea tarda**

○ **Systemic lupus erythematosus**

● **Discoid lupus erythematosus**

○ **Psoriasis**

○ **Atopic eczema**

## Description

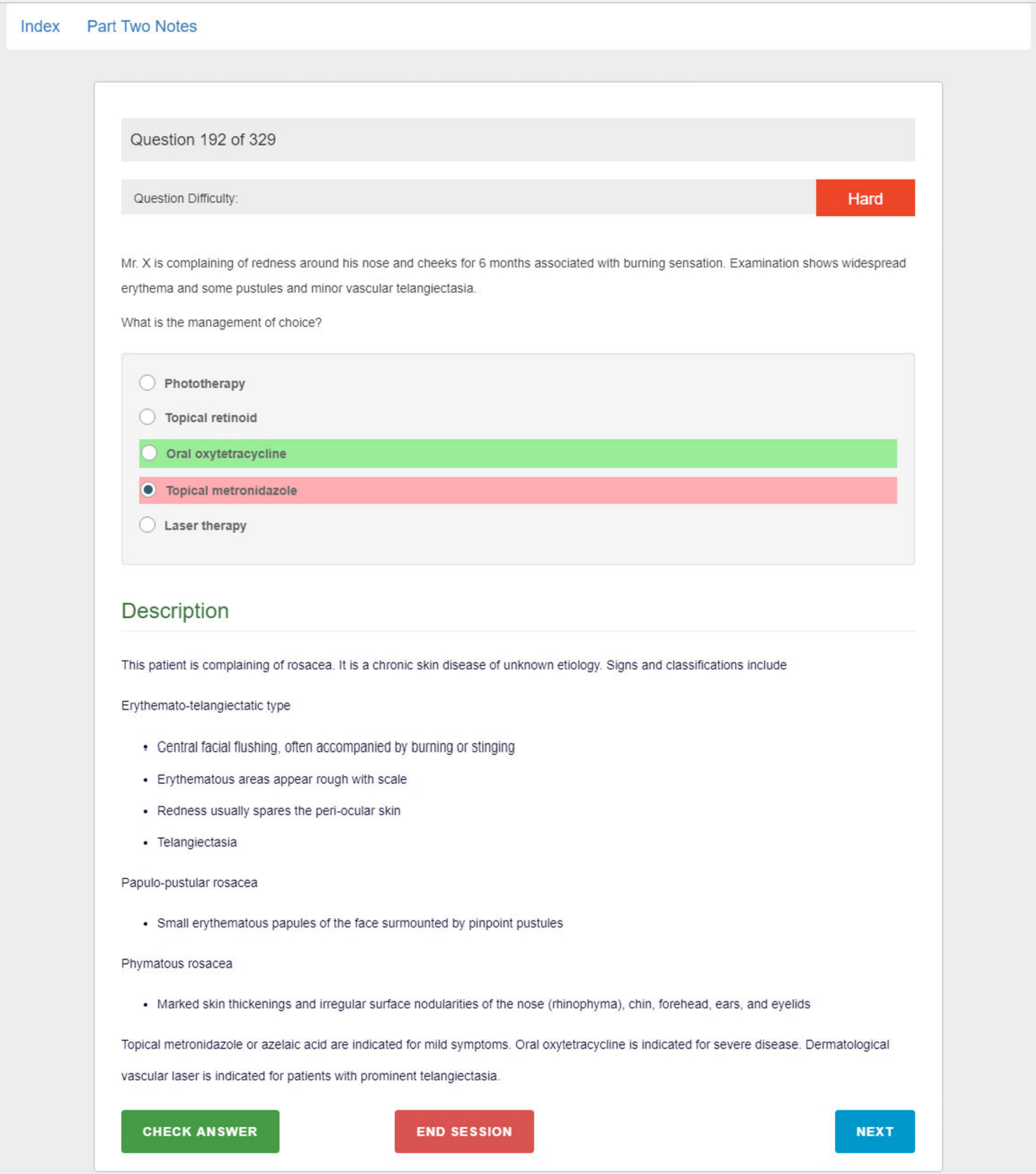
Discoid lupus erythematosus (DLE) is a chronic relapsing and remitting cutaneous disease of sores with inflammation and scarring on the face, ears, and scalp. It is manifested by:

- Symmetric erythematous or plaques with butterfly distribution or systemic dissemination (hands and trunk)
- Lesions heal with atrophy, scarring and pigmentation
- Photosensitivity
- Scarring alopecia
- Positive ANA in 20% of cases

Systemic lupus erythematosus is manifested by triad of arthralgia, butterfly rash and fever.

## Session Statistics

**Answered**: 190 | ✓ **Correct**: 38 | ✕ **Incorrect**: 152 | **Average Score**: 20 %



Question 192 of 329

Question Difficulty: **Hard**

Mr. X is complaining of redness around his nose and cheeks for 6 months associated with burning sensation. Examination shows widespread erythema and some pustules and minor vascular telangiectasia.

What is the management of choice?

○ **Phototherapy**
○ **Topical retinoid**
○ **Oral oxytetracycline**
● **Topical metronidazole**
○ **Laser therapy**

## Description

This patient is complaining of rosacea. It is a chronic skin disease of unknown etiology. Signs and classifications include

Erythemato-telangiectatic type

- Central facial flushing, often accompanied by burning or stinging
- Erythematous areas appear rough with scale
- Redness usually spares the peri-ocular skin
- Telangiectasia

Papulo-pustular rosacea

- Small erythematous papules of the face surmounted by pinpoint pustules

Phymatous rosacea

- Marked skin thickenings and irregular surface nodularities of the nose (rhinophyma), chin, forehead, ears, and eyelids

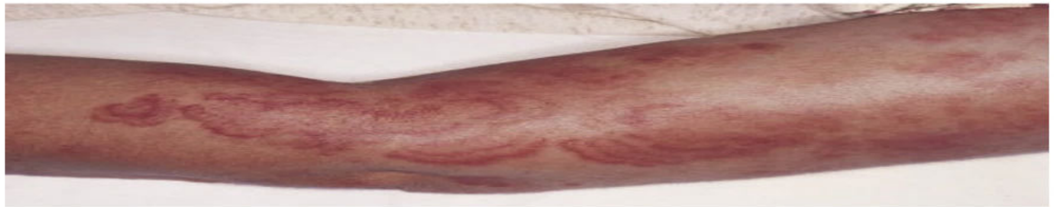
Topical metronidazole or azelaic acid are indicated for mild symptoms. Oral oxytetracycline is indicated for severe disease. Dermatological vascular laser is indicated for patients with prominent telangiectasia.

Question 193 of 329

Question Difficulty: **Hard**

Mrs. X is complaining of the severe itching rash on his arm. He was recently diagnosed to have squamous cell lung cancer and managed by chemotherapy.

Examination shows concentric erythematous bands shown in the image



Which of the following diseases would be associated?

- ● **Breast cancer**
- ○ **Psoriasis**
- ○ **Rheumatoid arthritis**
- ○ **Dermatomyositis**
- ○ **Stevens- Johnson syndrome**

## Description

The image shows Erythema gyratum repens. It is a figurate erythema that is an early paraneoplastic sign of organ malignancies as lung cancers.

It is manifested by concentric erythematous bands forming a wood-grain appearance with rapid migration and intense pruritus. It usually affects the trunk and extremities.

CHECK ANSWER END SESSION NEXT

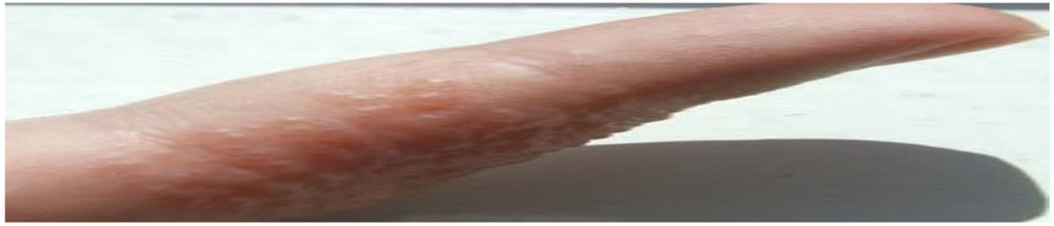
## Session Statistics

Question 194 of 329

Question Difficulty: **Hard**

Mr. X is complaining of recurrent itching rashes on his palms and soles. He reported that the episodes started 5 years previously and recurs every month.

Examination shows multiple 2 mm blisters on his palms and soles extending to the tips of the fingers and toes as in the image. Minimal pressure causes mating of blisters or rupture inside the skin causing cracking of the skin.



What is the management of choice?

- ○ **Dapsone**
- ○ **Oral acyclovir**
- ○ **IV flucloxacillin**
- ● **Oral fluconazole**
- ○ **Topical emollients**

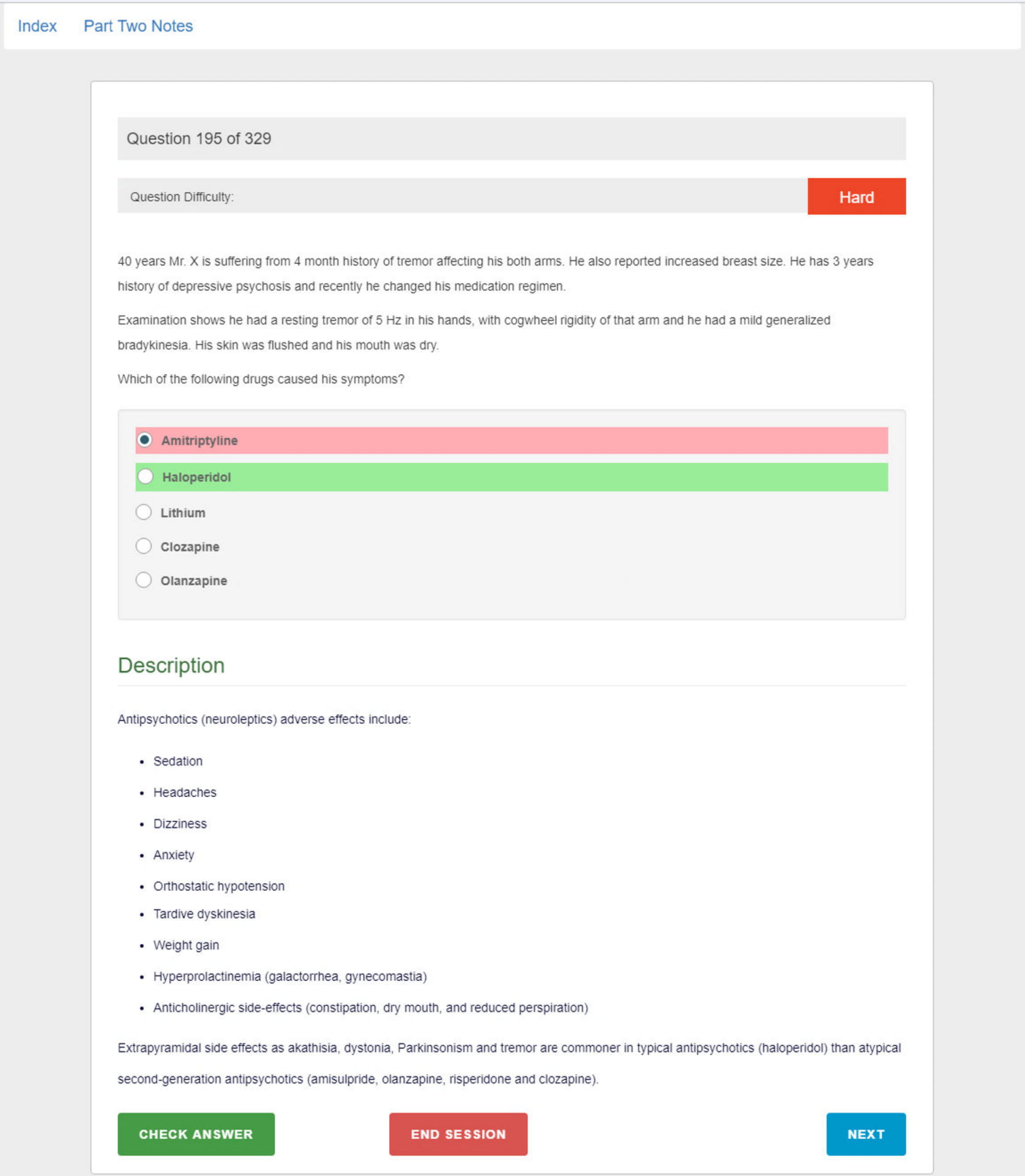
## Description

This patient is complaining of Pompholyx. It is an acute, chronic, or recurrent allergic dermatosis that is characterized by small blisters formation. It is manifested by:

- Lesions appear on the tips and sides of the fingers, toes, palms, and soles
- Blisters are 3 mm or less in diameter
- Blisters are itchy, opaque and deep-seated, slightly elevated and do not break easily
- Small blisters mate together and form large blisters
- Scratching blisters causes releasing the fluid inside and the skin to crust and eventually crack

Chronic disease is managed by dapsone.

**CHECK ANSWER** **END SESSION** **NEXT**



Question 195 of 329

Question Difficulty: **Hard**

40 years Mr. X is suffering from 4 month history of tremor affecting his both arms. He also reported increased breast size. He has 3 years history of depressive psychosis and recently he changed his medication regimen.

Examination shows he had a resting tremor of 5 Hz in his hands, with cogwheel rigidity of that arm and he had a mild generalized bradykinesia. His skin was flushed and his mouth was dry.

Which of the following drugs caused his symptoms?

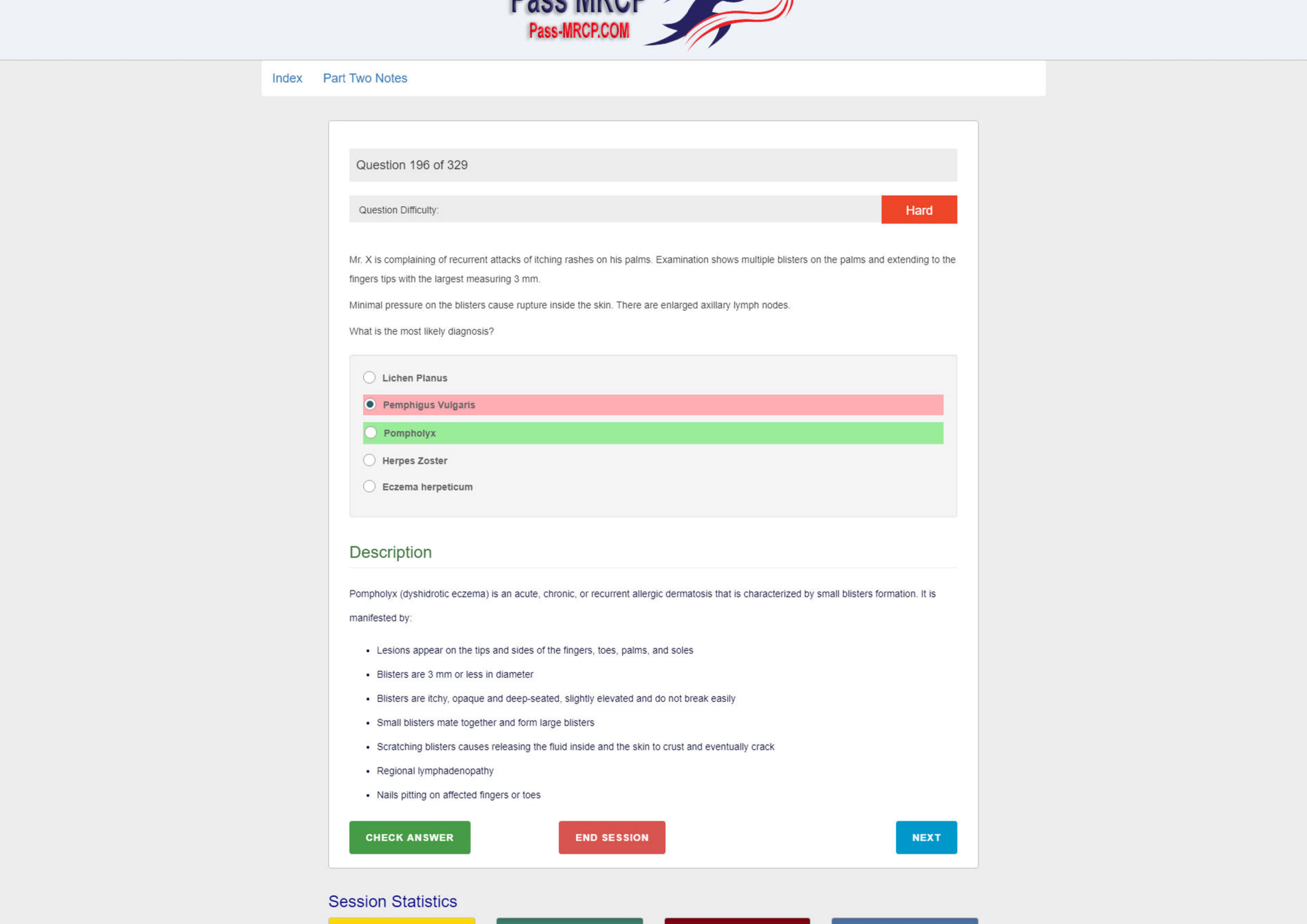
● **Amitriptyline**
○ **Haloperidol**
○ **Lithium**
○ **Clozapine**
○ **Olanzapine**

## Description

Antipsychotics (neuroleptics) adverse effects include:

- Sedation
- Headaches
- Dizziness
- Anxiety
- Orthostatic hypotension
- Tardive dyskinesia
- Weight gain
- Hyperprolactinemia (galactorrhea, gynecomastia)
- Anticholinergic side-effects (constipation, dry mouth, and reduced perspiration)

Extrapyramidal side effects as akathisia, dystonia, Parkinsonism and tremor are commoner in typical antipsychotics (haloperidol) than atypical second-generation antipsychotics (amisulpride, olanzapine, risperidone and clozapine).



Question 196 of 329

Question Difficulty: Hard

Mr. X is complaining of recurrent attacks of itching rashes on his palms. Examination shows multiple blisters on the palms and extending to the fingers tips with the largest measuring 3 mm.

Minimal pressure on the blisters cause rupture inside the skin. There are enlarged axillary lymph nodes.

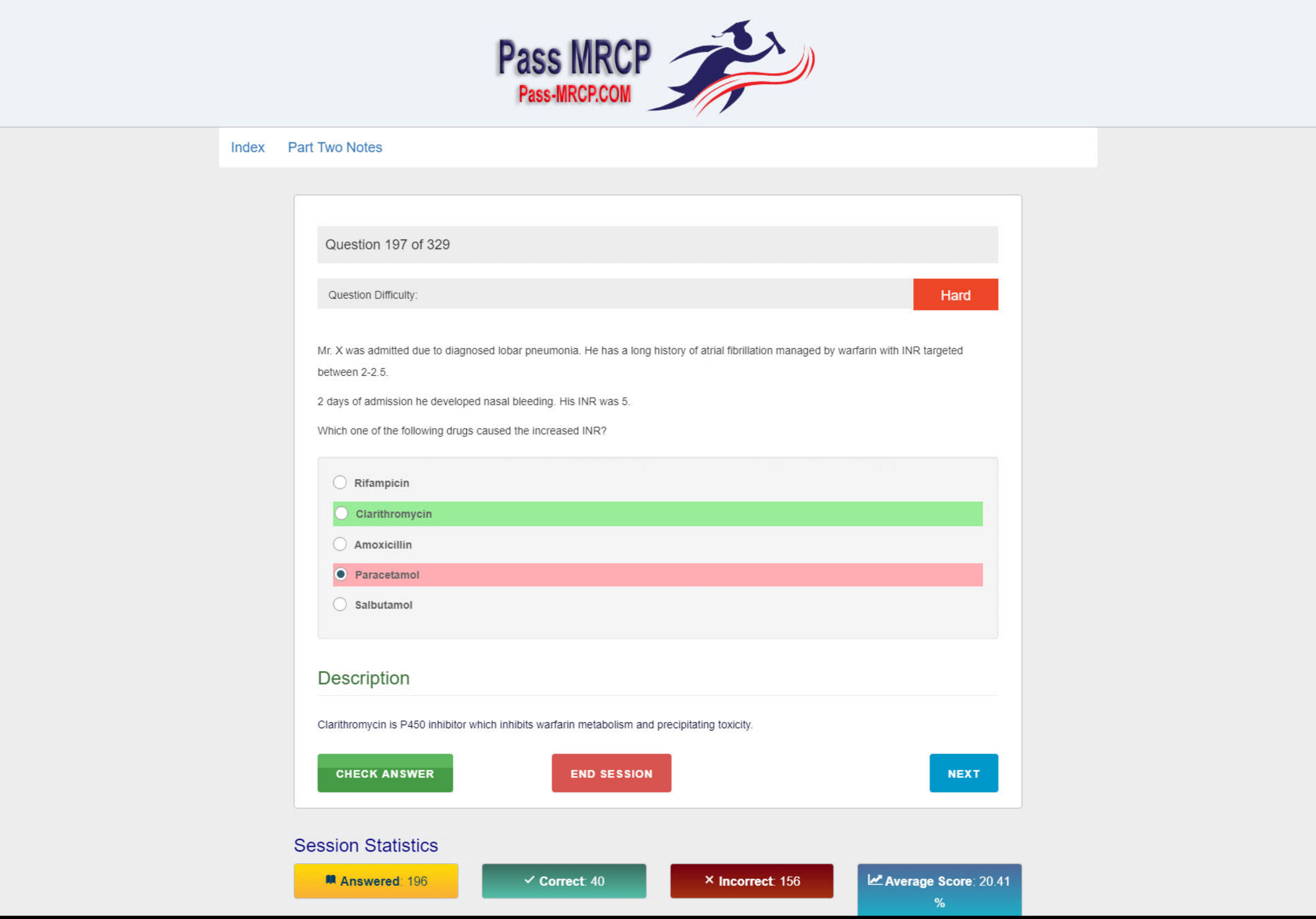
What is the most likely diagnosis?

○ Lichen Planus
● Pemphigus Vulgaris
○ Pompholyx
○ Herpes Zoster
○ Eczema herpeticum

## Description

Pompholyx (dyshidrotic eczema) is an acute, chronic, or recurrent allergic dermatosis that is characterized by small blisters formation. It is manifested by:

- Lesions appear on the tips and sides of the fingers, toes, palms, and soles
- Blisters are 3 mm or less in diameter
- Blisters are itchy, opaque and deep-seated, slightly elevated and do not break easily
- Small blisters mate together and form large blisters
- Scratching blisters causes releasing the fluid inside and the skin to crust and eventually crack
- Regional lymphadenopathy
- Nails pitting on affected fingers or toes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Question Difficulty: Hard

Mr. X was admitted due to diagnosed lobar pneumonia. He has a long history of atrial fibrillation managed by warfarin with INR targeted between 2-2.5.

2 days of admission he developed nasal bleeding. His INR was 5.

Which one of the following drugs caused the increased INR?

- ○ Rifampicin
- ○ Clarithromycin
- ○ Amoxicillin
- ● Paracetamol
- ○ Salbutamol

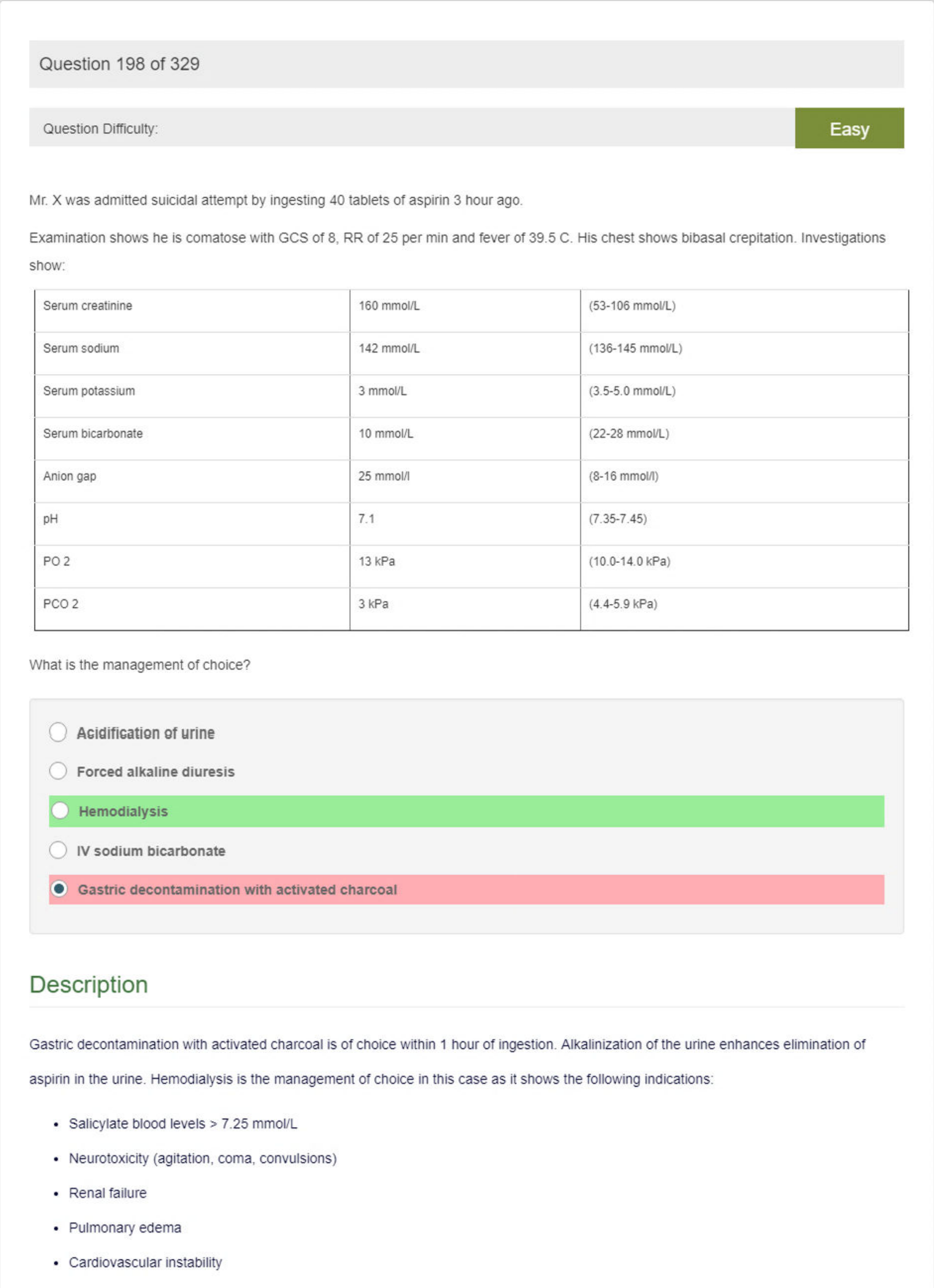
## Description

Clarithromycin is P450 inhibitor which inhibits warfarin metabolism and precipitating toxicity.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 196
✓ Correct: 40
✕ Incorrect: 156
Average Score: 20.41 %



Question 198 of 329

Question Difficulty: **Easy**

Mr. X was admitted suicidal attempt by ingesting 40 tablets of aspirin 3 hour ago.

Examination shows he is comatose with GCS of 8, RR of 25 per min and fever of 39.5 C. His chest shows bibasal crepitation. Investigations show:

| | | |
|---|---|---|
| Serum creatinine | 160 mmol/L | (53-106 mmol/L) |
| Serum sodium | 142 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 10 mmol/L | (22-28 mmol/L) |
| Anion gap | 25 mmol/l | (8-16 mmol/l) |
| pH | 7.1 | (7.35-7.45) |
| PO 2 | 13 kPa | (10.0-14.0 kPa) |
| PCO 2 | 3 kPa | (4.4-5.9 kPa) |

What is the management of choice?

○ **Acidification of urine**

○ **Forced alkaline diuresis**

○ **Hemodialysis**

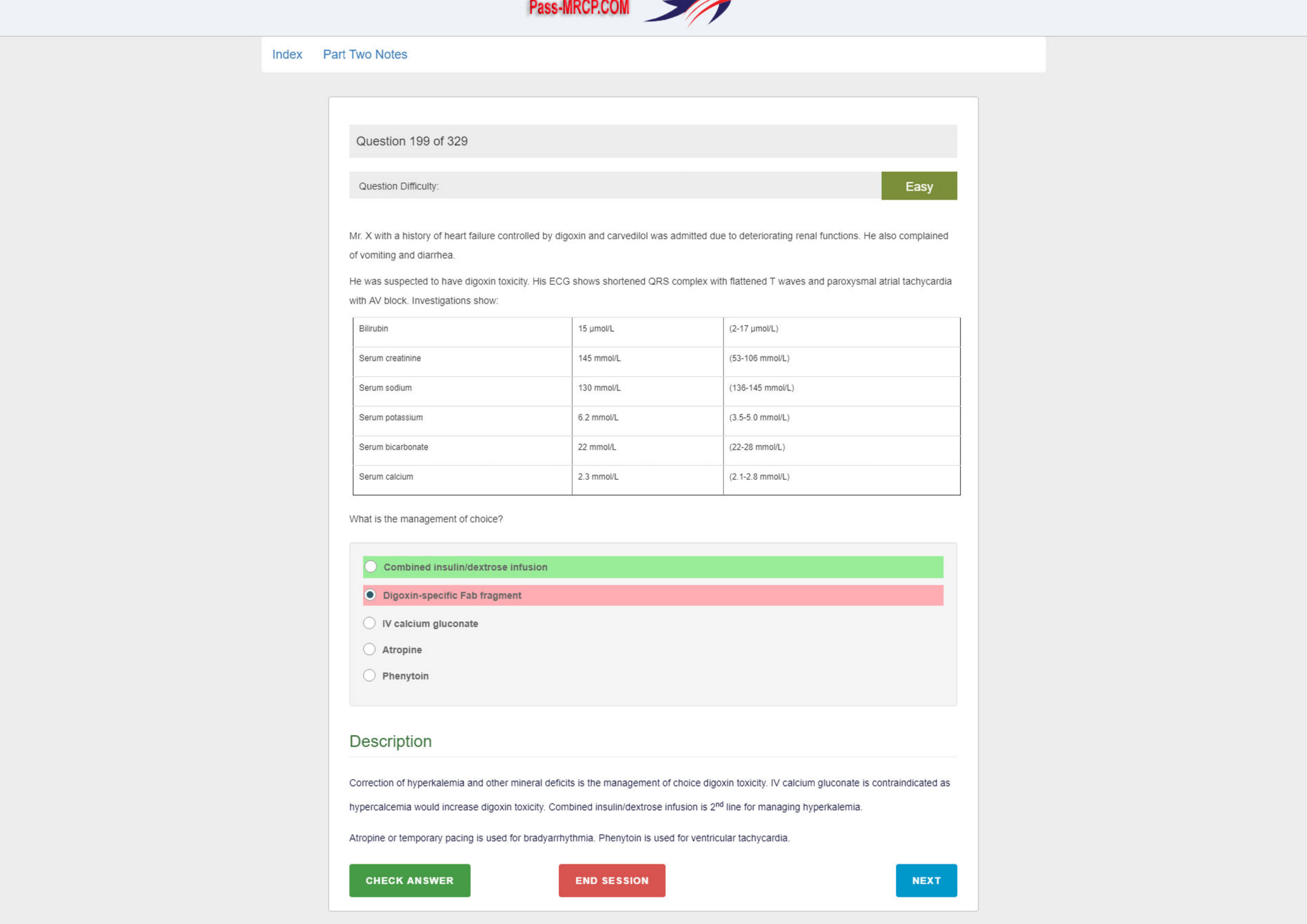
○ **IV sodium bicarbonate**

● **Gastric decontamination with activated charcoal**

## Description

Gastric decontamination with activated charcoal is of choice within 1 hour of ingestion. Alkalinization of the urine enhances elimination of aspirin in the urine. Hemodialysis is the management of choice in this case as it shows the following indications:

- Salicylate blood levels > 7.25 mmol/L
- Neurotoxicity (agitation, coma, convulsions)
- Renal failure
- Pulmonary edema
- Cardiovascular instability



Question 199 of 329

Question Difficulty: Easy

Mr. X with a history of heart failure controlled by digoxin and carvedilol was admitted due to deteriorating renal functions. He also complained of vomiting and diarrhea.

He was suspected to have digoxin toxicity. His ECG shows shortened QRS complex with flattened T waves and paroxysmal atrial tachycardia with AV block. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 µmol/L | (2-17 µmol/L) |
| Serum creatinine | 145 mmol/L | (53-106 mmol/L) |
| Serum sodium | 130 mmol/L | (136-145 mmol/L) |
| Serum potassium | 6.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 22 mmol/L | (22-28 mmol/L) |
| Serum calcium | 2.3 mmol/L | (2.1-2.8 mmol/L) |

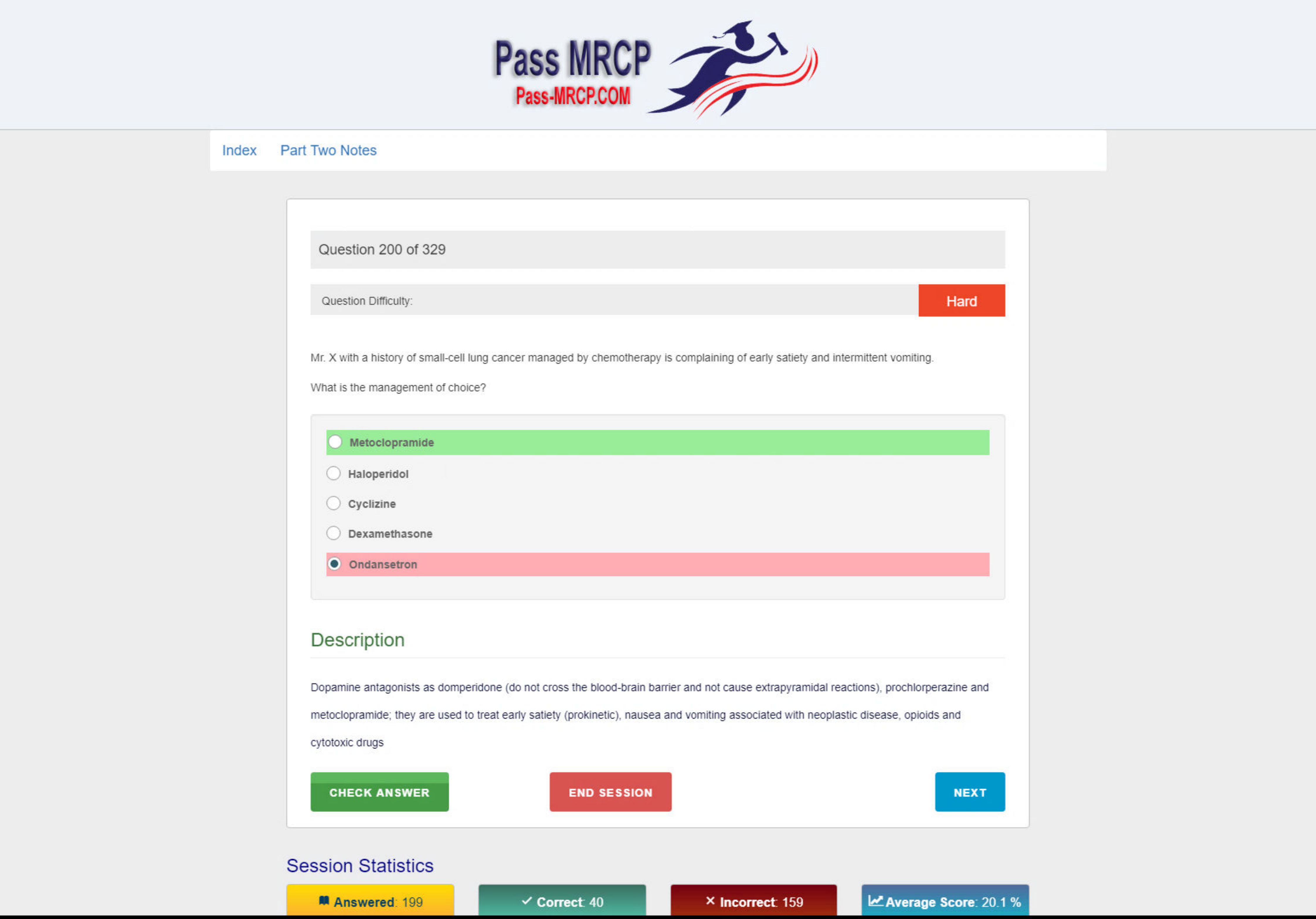
What is the management of choice?

- ○ **Combined insulin/dextrose infusion**
- ● **Digoxin-specific Fab fragment**
- ○ **IV calcium gluconate**
- ○ **Atropine**
- ○ **Phenytoin**

## Description

Correction of hyperkalemia and other mineral deficits is the management of choice digoxin toxicity. IV calcium gluconate is contraindicated as hypercalcemia would increase digoxin toxicity. Combined insulin/dextrose infusion is 2nd line for managing hyperkalemia.

Atropine or temporary pacing is used for bradyarrhythmia. Phenytoin is used for ventricular tachycardia.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Question 200 of 329

Question Difficulty: Hard

Mr. X with a history of small-cell lung cancer managed by chemotherapy is complaining of early satiety and intermittent vomiting.

What is the management of choice?

- ○ **Metoclopramide**
- ○ **Haloperidol**
- ○ **Cyclizine**
- ○ **Dexamethasone**
- ● **Ondansetron**

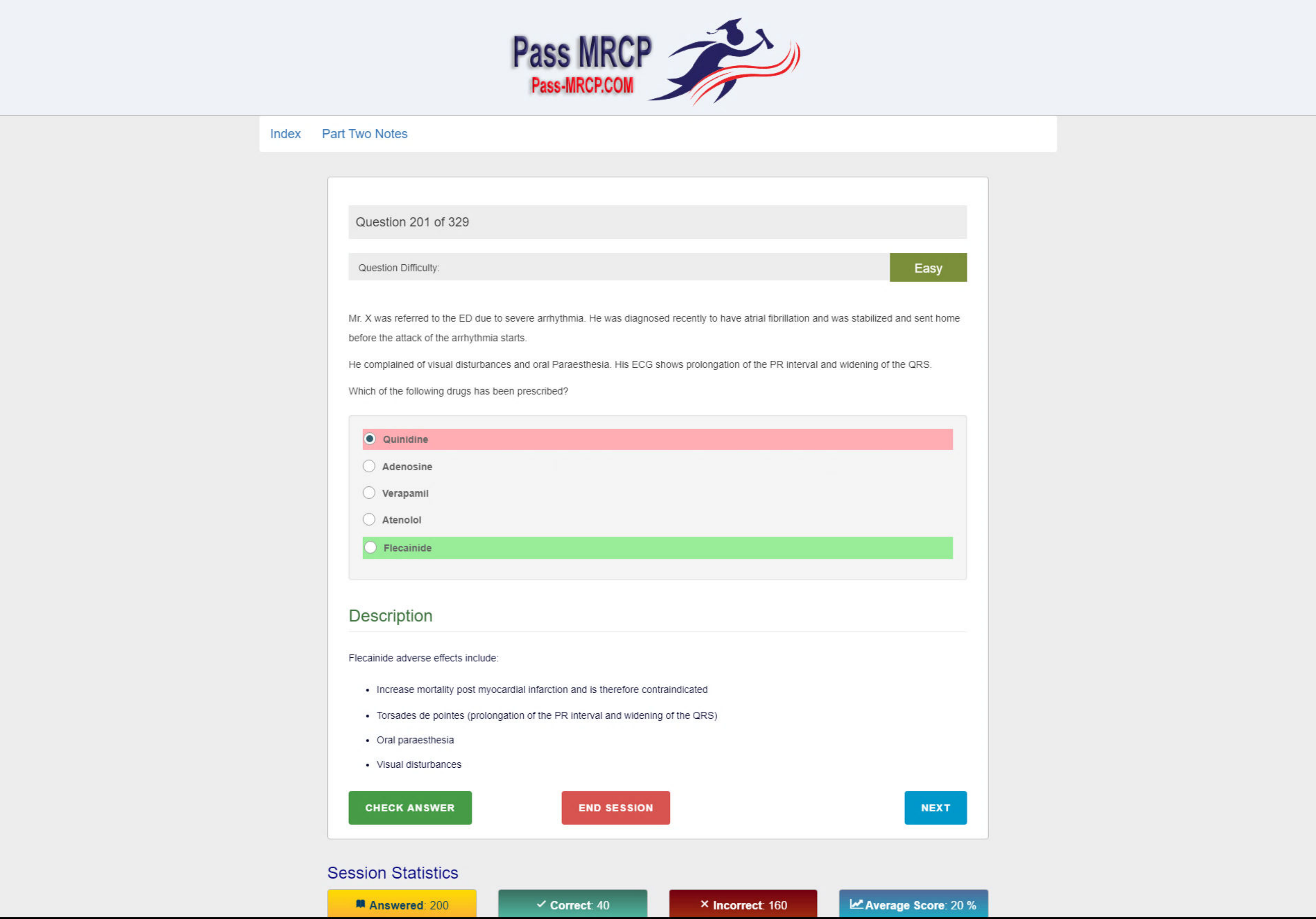
## Description

Dopamine antagonists as domperidone (do not cross the blood-brain barrier and not cause extrapyramidal reactions), prochlorperazine and metoclopramide; they are used to treat early satiety (prokinetic), nausea and vomiting associated with neoplastic disease, opioids and cytotoxic drugs

CHECK ANSWER
END SESSION
NEXT

Session Statistics

**Answered**: 199
✓ **Correct**: 40
× **Incorrect**: 159
**Average Score**: 20.1 %



Question 201 of 329

Question Difficulty: **Easy**

Mr. X was referred to the ED due to severe arrhythmia. He was diagnosed recently to have atrial fibrillation and was stabilized and sent home before the attack of the arrhythmia starts.

He complained of visual disturbances and oral Paraesthesia. His ECG shows prolongation of the PR interval and widening of the QRS.

Which of the following drugs has been prescribed?

● **Quinidine**
○ **Adenosine**
○ **Verapamil**
○ **Atenolol**
○ **Flecainide**

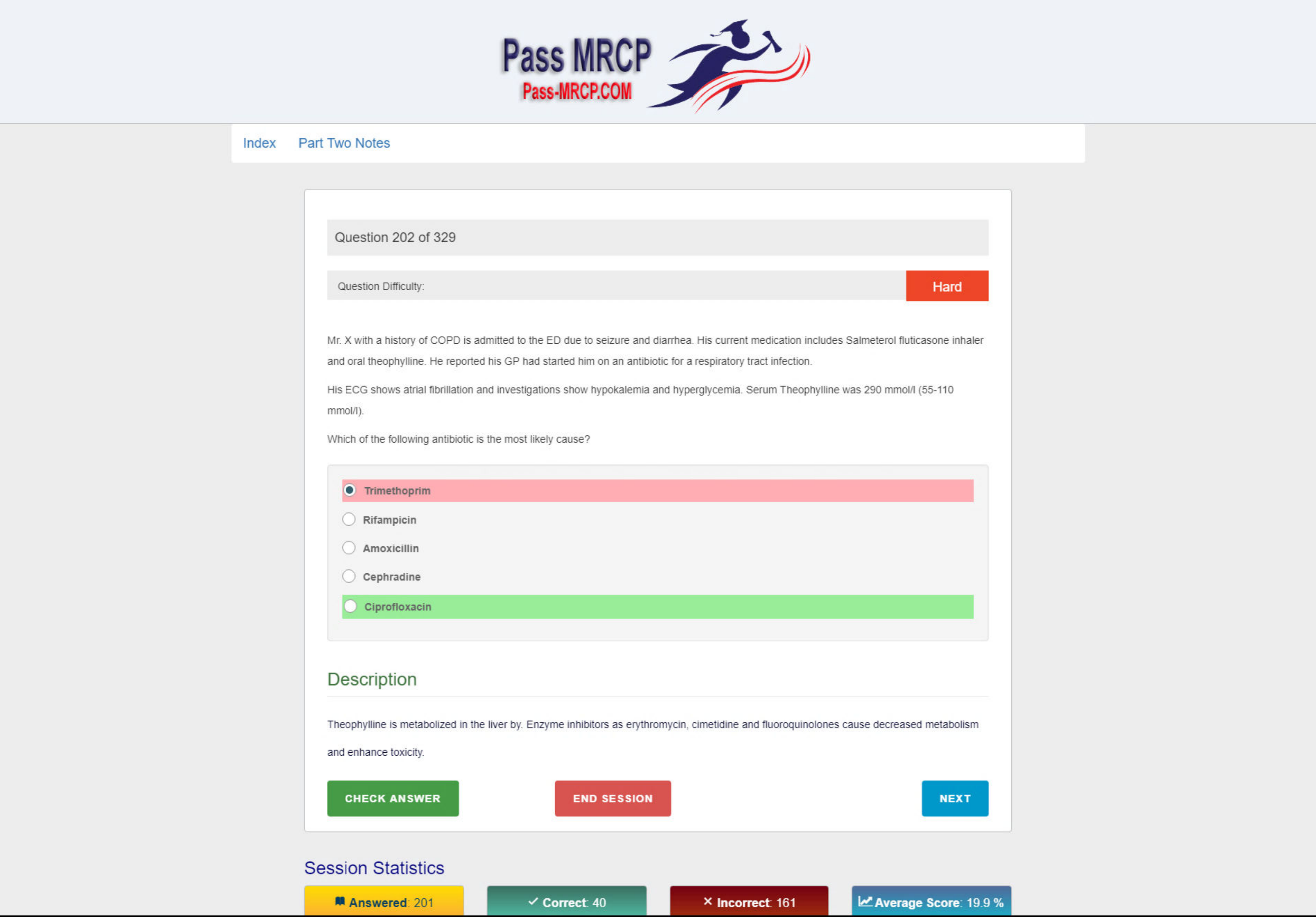
## Description

Flecainide adverse effects include:

- Increase mortality post myocardial infarction and is therefore contraindicated
- Torsades de pointes (prolongation of the PR interval and widening of the QRS)
- Oral paraesthesia
- Visual disturbances

Session Statistics

**Answered**: 200
**Correct**: 40
**Incorrect**: 160
**Average Score**: 20 %



Question 202 of 329

Question Difficulty: Hard

Mr. X with a history of COPD is admitted to the ED due to seizure and diarrhea. His current medication includes Salmeterol fluticasone inhaler and oral theophylline. He reported his GP had started him on an antibiotic for a respiratory tract infection.

His ECG shows atrial fibrillation and investigations show hypokalemia and hyperglycemia. Serum Theophylline was 290 mmol/l (55-110 mmol/l).

Which of the following antibiotic is the most likely cause?

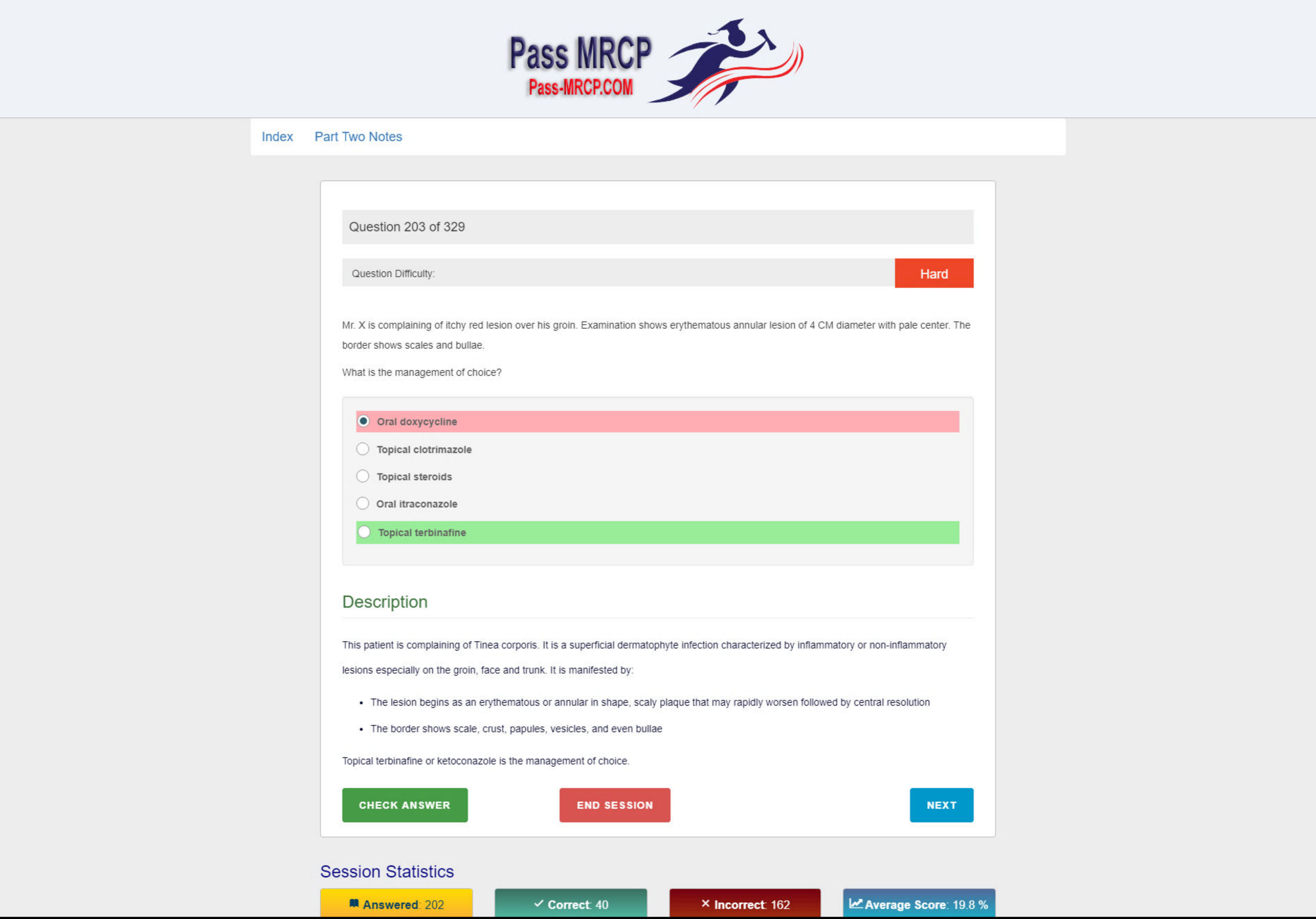
- ● **Trimethoprim**
- ○ **Rifampicin**
- ○ **Amoxicillin**
- ○ **Cephradine**
- ○ **Ciprofloxacin**

## Description

Theophylline is metabolized in the liver by. Enzyme inhibitors as erythromycin, cimetidine and fluoroquinolones cause decreased metabolism and enhance toxicity.

Session Statistics

**Answered**: 201
✓ **Correct**: 40
✕ **Incorrect**: 161
**Average Score**: 19.9 %



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Question 203 of 329

Question Difficulty: Hard

Mr. X is complaining of itchy red lesion over his groin. Examination shows erythematous annular lesion of 4 CM diameter with pale center. The border shows scales and bullae.

What is the management of choice?

● Oral doxycycline
○ Topical clotrimazole
○ Topical steroids
○ Oral itraconazole
○ Topical terbinafine

## Description

This patient is complaining of Tinea corporis. It is a superficial dermatophyte infection characterized by inflammatory or non-inflammatory lesions especially on the groin, face and trunk. It is manifested by:

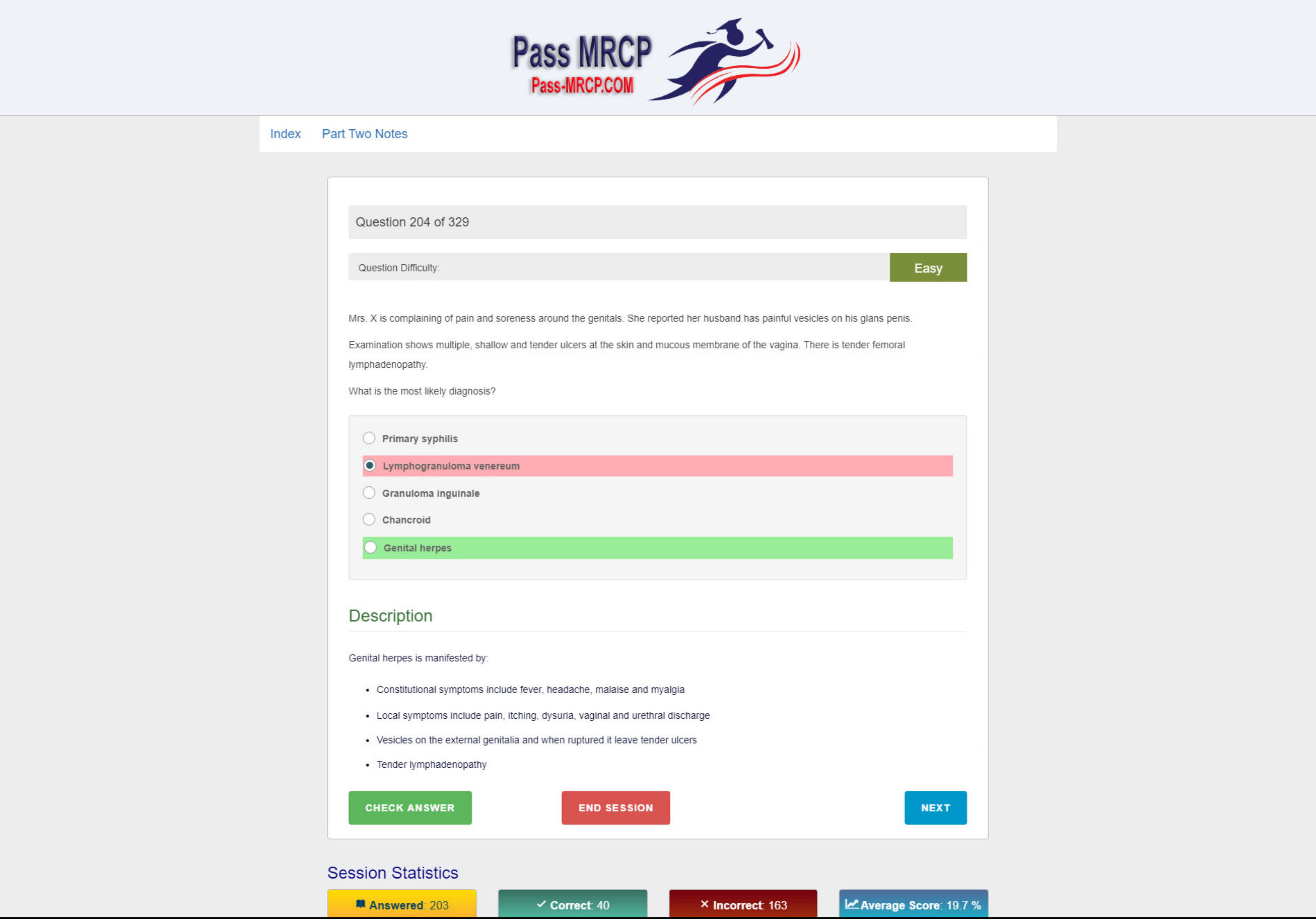
- The lesion begins as an erythematous or annular in shape, scaly plaque that may rapidly worsen followed by central resolution
- The border shows scale, crust, papules, vesicles, and even bullae

Topical terbinafine or ketoconazole is the management of choice.

CHECK ANSWER END SESSION NEXT

Session Statistics

Answered: 202 ✓ Correct: 40 ✕ Incorrect: 162 Average Score: 19.8 %



Question 204 of 329

Question Difficulty: Easy

Mrs. X is complaining of pain and soreness around the genitals. She reported her husband has painful vesicles on his glans penis.

Examination shows multiple, shallow and tender ulcers at the skin and mucous membrane of the vagina. There is tender femoral lymphadenopathy.

What is the most likely diagnosis?

○ **Primary syphilis**

● **Lymphogranuloma venereum**

○ **Granuloma inguinale**

○ **Chancroid**

○ **Genital herpes**

## Description

Genital herpes is manifested by:

- Constitutional symptoms include fever, headache, malaise and myalgia
- Local symptoms include pain, itching, dysuria, vaginal and urethral discharge
- Vesicles on the external genitalia and when ruptured it leave tender ulcers
- Tender lymphadenopathy

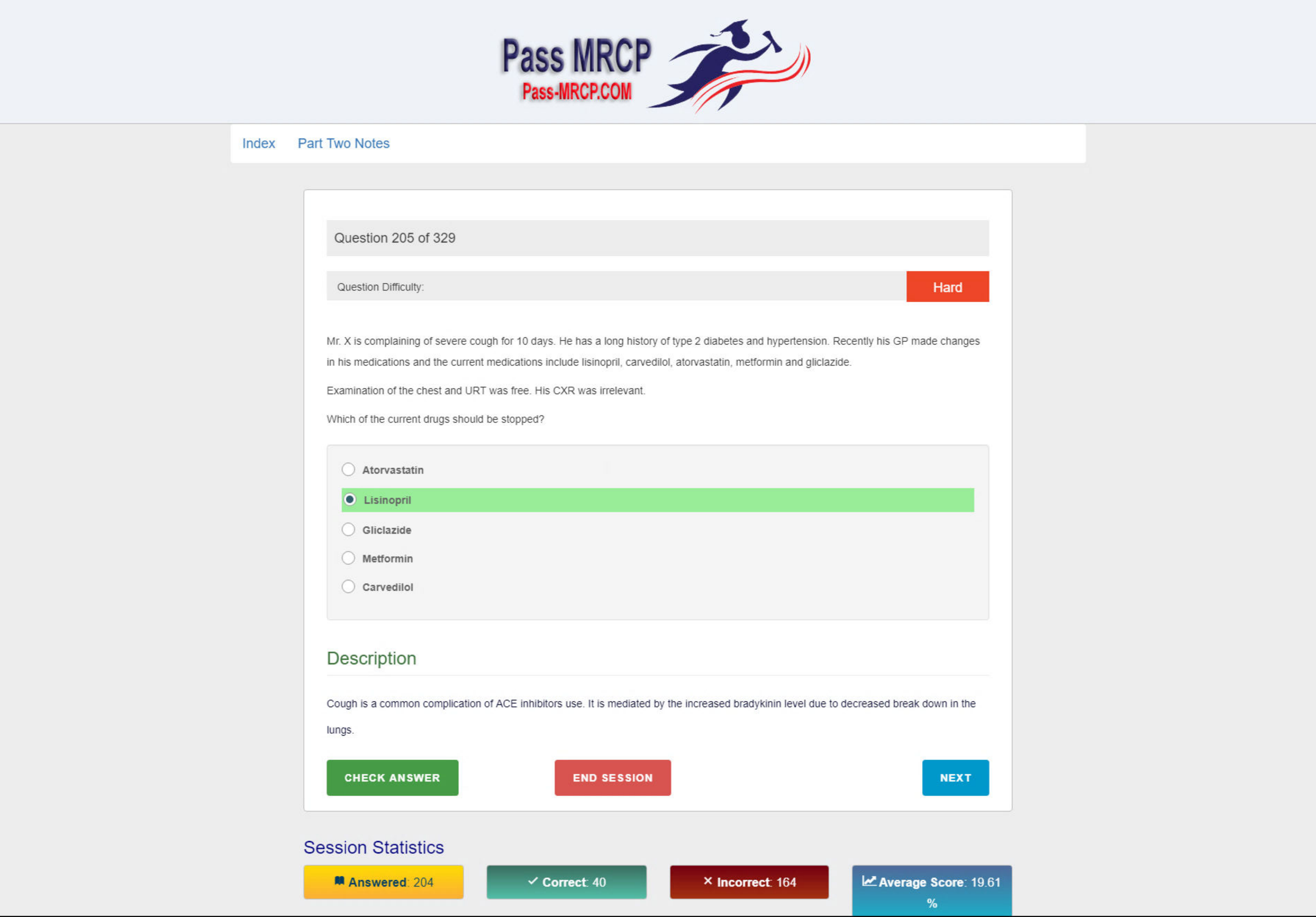
## Session Statistics

**Answered**: 203

✓ **Correct**: 40

✕ **Incorrect**: 163

**Average Score**: 19.7 %



Question 205 of 329

Question Difficulty: Hard

Mr. X is complaining of severe cough for 10 days. He has a long history of type 2 diabetes and hypertension. Recently his GP made changes in his medications and the current medications include lisinopril, carvedilol, atorvastatin, metformin and gliclazide.

Examination of the chest and URT was free. His CXR was irrelevant.

Which of the current drugs should be stopped?

- ○ **Atorvastatin**
- ● **Lisinopril**
- ○ **Gliclazide**
- ○ **Metformin**
- ○ **Carvedilol**

## Description

Cough is a common complication of ACE inhibitors use. It is mediated by the increased bradykinin level due to decreased break down in the lungs.

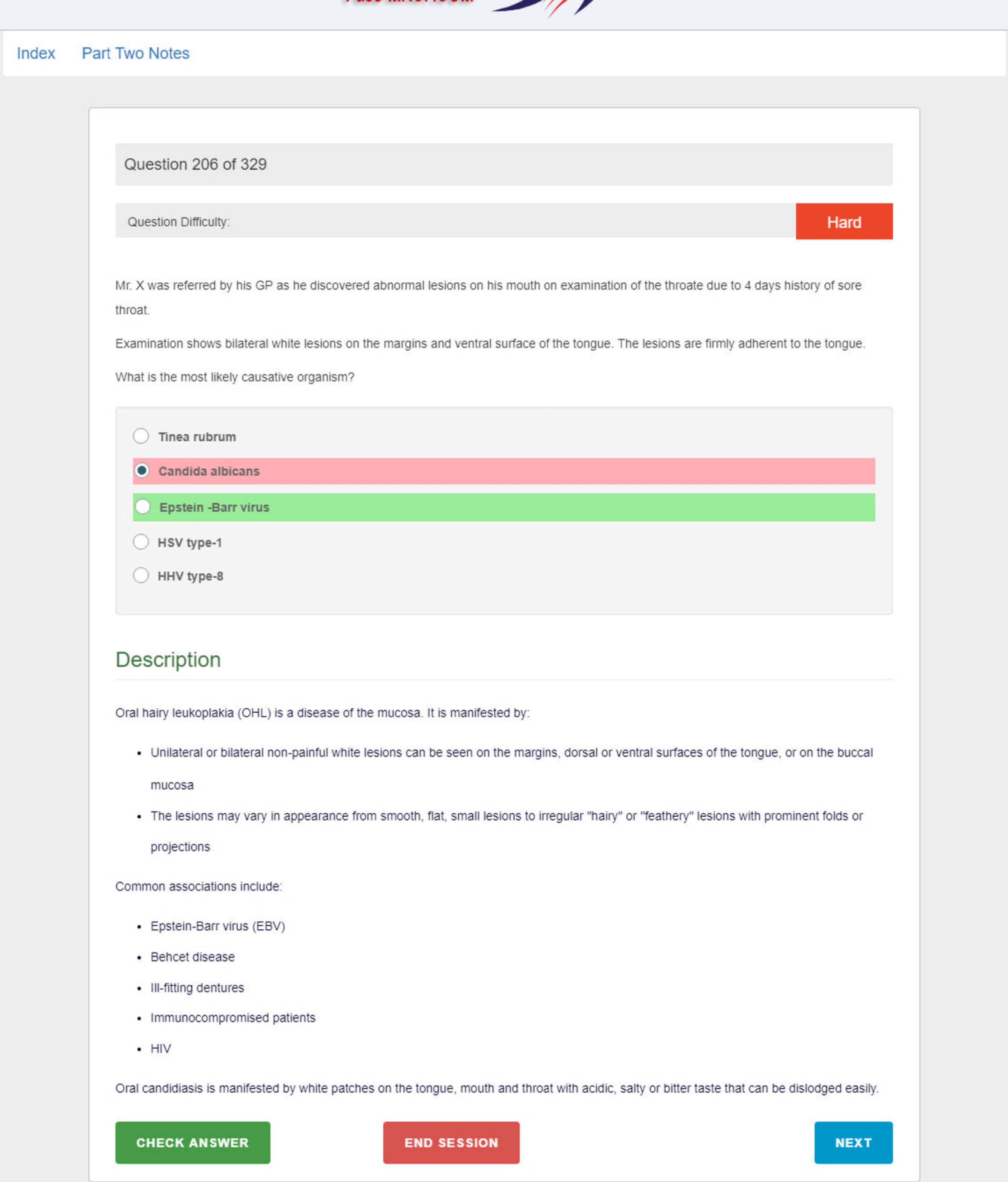
## Session Statistics

**Answered**: 204

✓ **Correct**: 40

× **Incorrect**: 164

**Average Score**: 19.61 %



Question 206 of 329

Question Difficulty: **Hard**

Mr. X was referred by his GP as he discovered abnormal lesions on his mouth on examination of the throate due to 4 days history of sore throat.

Examination shows bilateral white lesions on the margins and ventral surface of the tongue. The lesions are firmly adherent to the tongue.

What is the most likely causative organism?

○ **Tinea rubrum**
● **Candida albicans**
○ **Epstein -Barr virus**
○ **HSV type-1**
○ **HHV type-8**

## Description

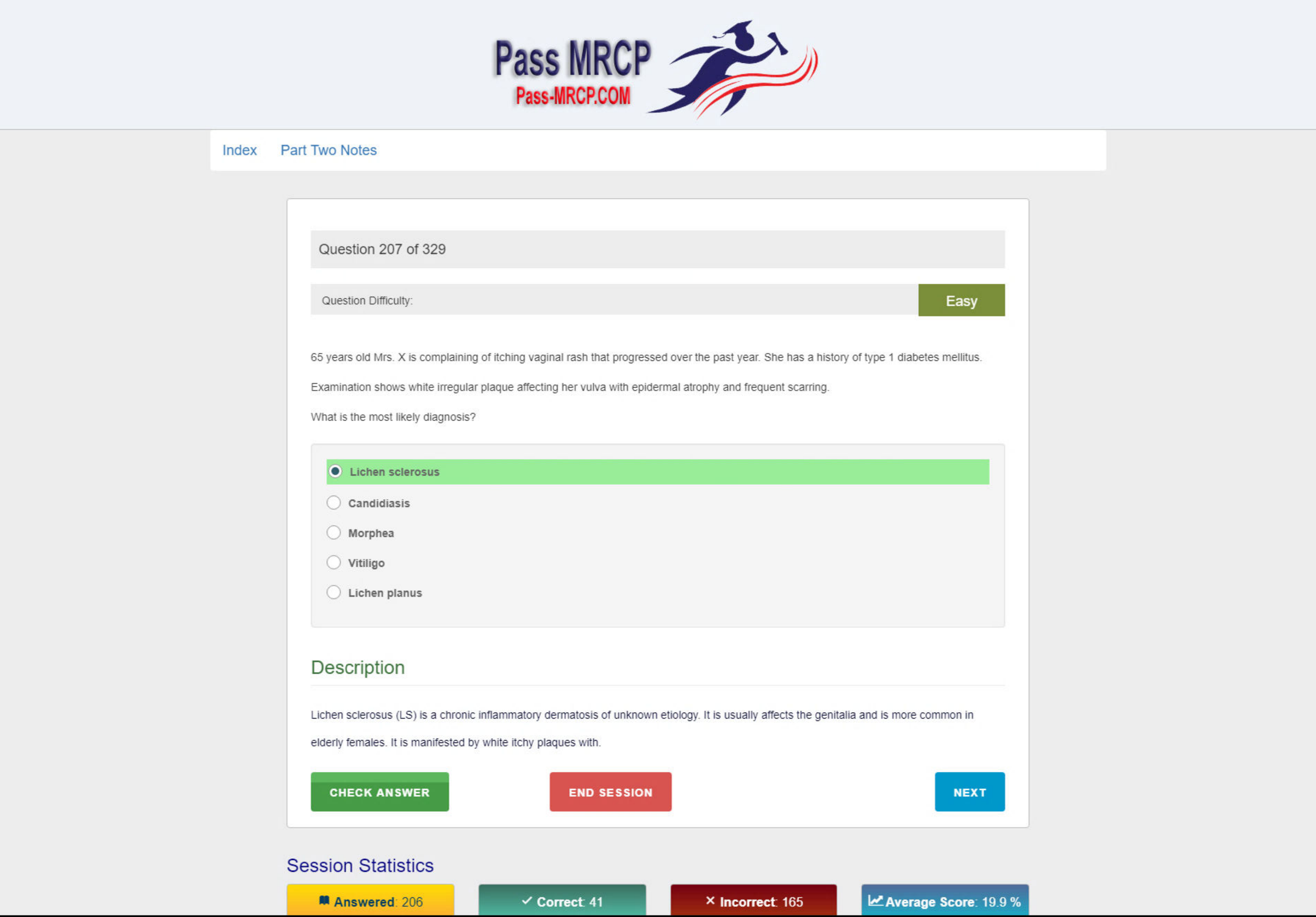
Oral hairy leukoplakia (OHL) is a disease of the mucosa. It is manifested by:

- Unilateral or bilateral non-painful white lesions can be seen on the margins, dorsal or ventral surfaces of the tongue, or on the buccal mucosa
- The lesions may vary in appearance from smooth, flat, small lesions to irregular "hairy" or "feathery" lesions with prominent folds or projections

Common associations include:

- Epstein-Barr virus (EBV)
- Behcet disease
- Ill-fitting dentures
- Immunocompromised patients
- HIV

Oral candidiasis is manifested by white patches on the tongue, mouth and throat with acidic, salty or bitter taste that can be dislodged easily.



Question 207 of 329

Question Difficulty: Easy

65 years old Mrs. X is complaining of itching vaginal rash that progressed over the past year. She has a history of type 1 diabetes mellitus.

Examination shows white irregular plaque affecting her vulva with epidermal atrophy and frequent scarring.

What is the most likely diagnosis?

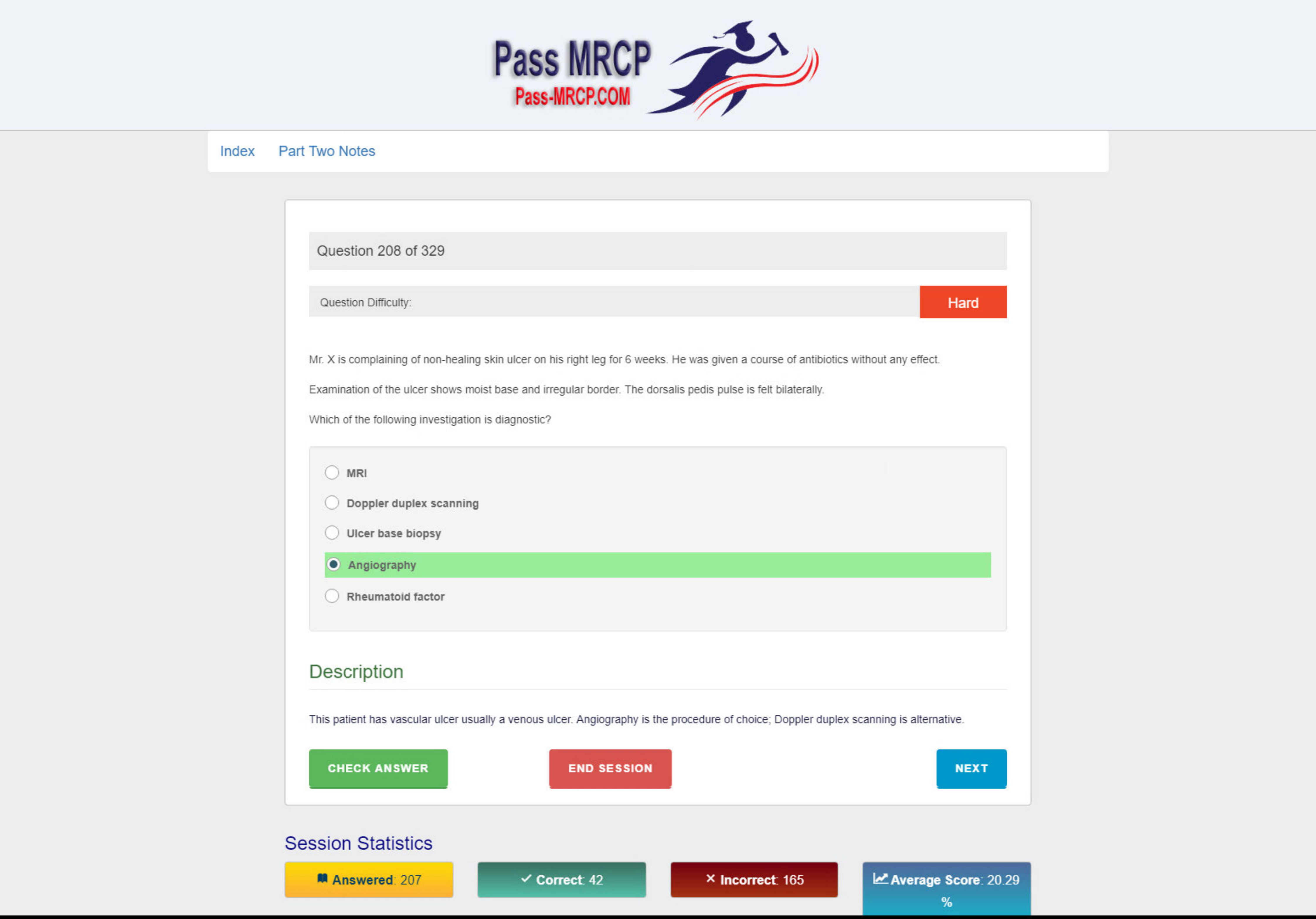
- ● Lichen sclerosus
- ○ Candidiasis
- ○ Morphea
- ○ Vitiligo
- ○ Lichen planus

## Description

Lichen sclerosus (LS) is a chronic inflammatory dermatosis of unknown etiology. It is usually affects the genitalia and is more common in elderly females. It is manifested by white itchy plaques with.

## Session Statistics

Answered: 206
✓ Correct: 41
✕ Incorrect: 165
Average Score: 19.9 %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Question 208 of 329

Question Difficulty: Hard

Mr. X is complaining of non-healing skin ulcer on his right leg for 6 weeks. He was given a course of antibiotics without any effect.

Examination of the ulcer shows moist base and irregular border. The dorsalis pedis pulse is felt bilaterally.

Which of the following investigation is diagnostic?

- ○ MRI
- ○ Doppler duplex scanning
- ○ Ulcer base biopsy
- ● Angiography
- ○ Rheumatoid factor

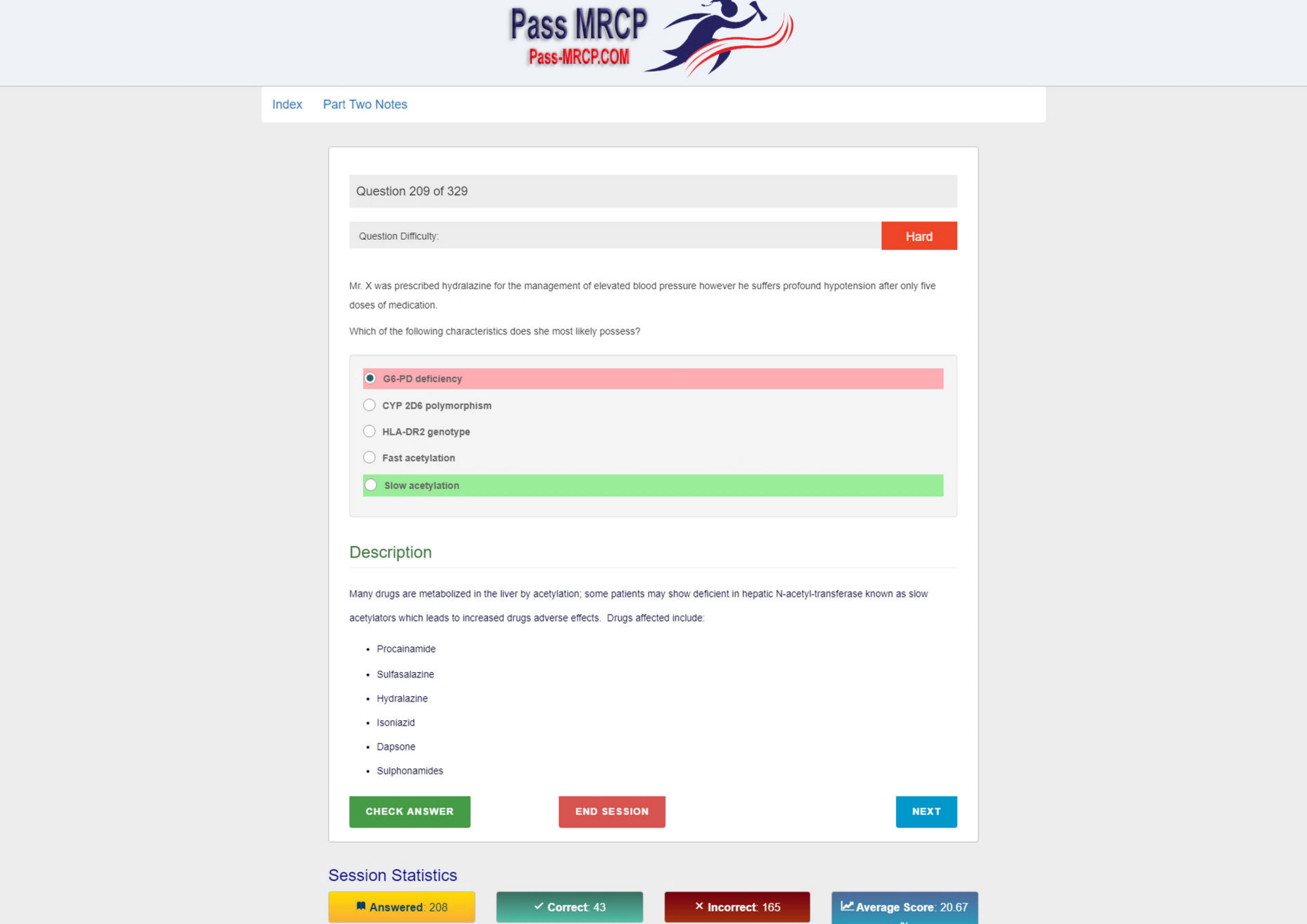
## Description

This patient has vascular ulcer usually a venous ulcer. Angiography is the procedure of choice; Doppler duplex scanning is alternative.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 207
Correct: 42
Incorrect: 165
Average Score: 20.29 %



Question 209 of 329

Question Difficulty: **Hard**

Mr. X was prescribed hydralazine for the management of elevated blood pressure however he suffers profound hypotension after only five doses of medication.

Which of the following characteristics does she most likely possess?

● **G6-PD deficiency**
○ **CYP 2D6 polymorphism**
○ **HLA-DR2 genotype**
○ **Fast acetylation**
○ **Slow acetylation**

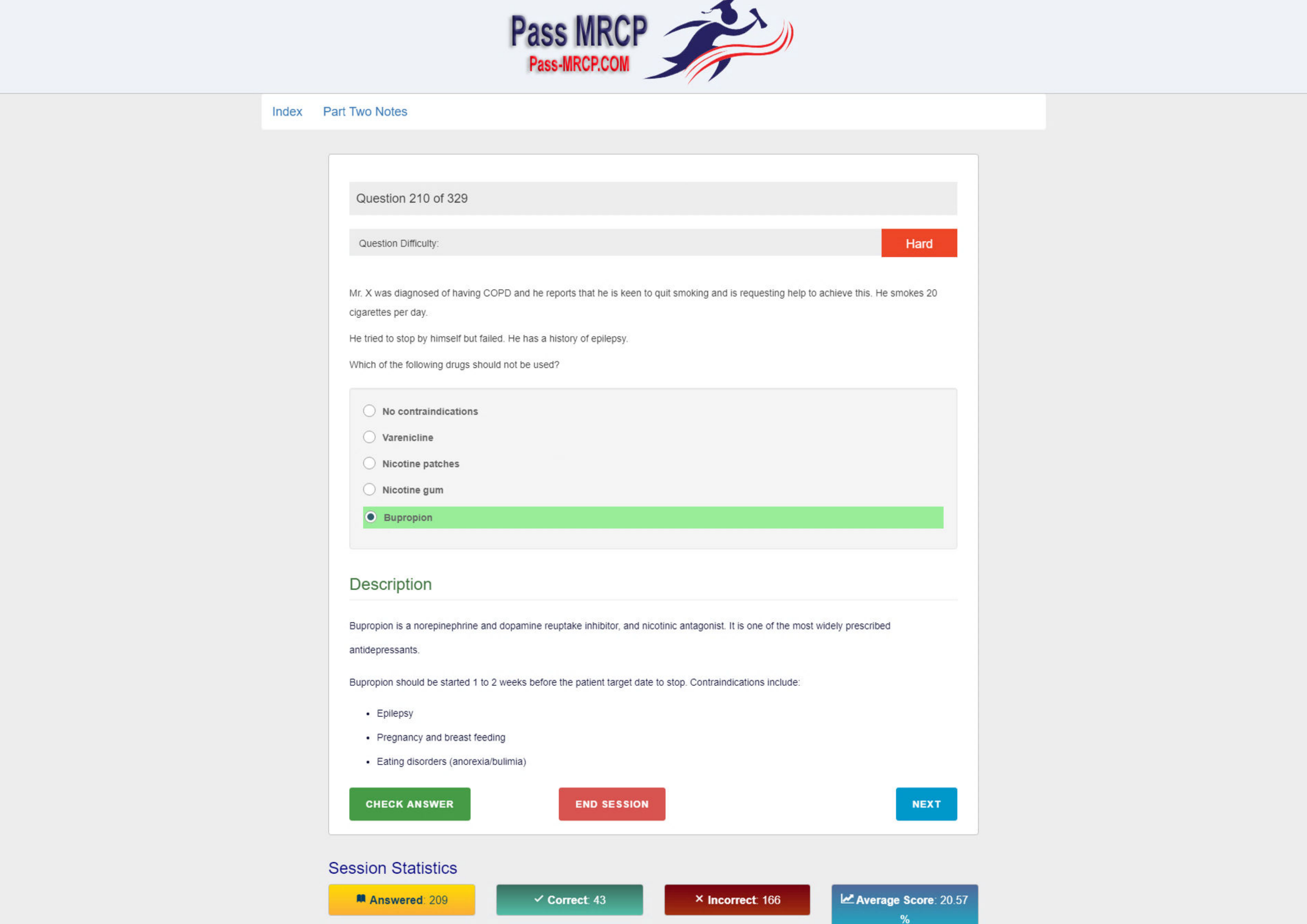
## Description

Many drugs are metabolized in the liver by acetylation; some patients may show deficient in hepatic N-acetyl-transferase known as slow acetylators which leads to increased drugs adverse effects.  Drugs affected include:

- Procainamide
- Sulfasalazine
- Hydralazine
- Isoniazid
- Dapsone
- Sulphonamides

## Session Statistics

**Answered**: 208
✓ **Correct**: 43
✕ **Incorrect**: 165
**Average Score**: 20.67



Question 210 of 329

Question Difficulty: Hard

Mr. X was diagnosed of having COPD and he reports that he is keen to quit smoking and is requesting help to achieve this. He smokes 20 cigarettes per day.

He tried to stop by himself but failed. He has a history of epilepsy.

Which of the following drugs should not be used?

○ No contraindications
○ Varenicline
○ Nicotine patches
○ Nicotine gum
● Bupropion

## Description

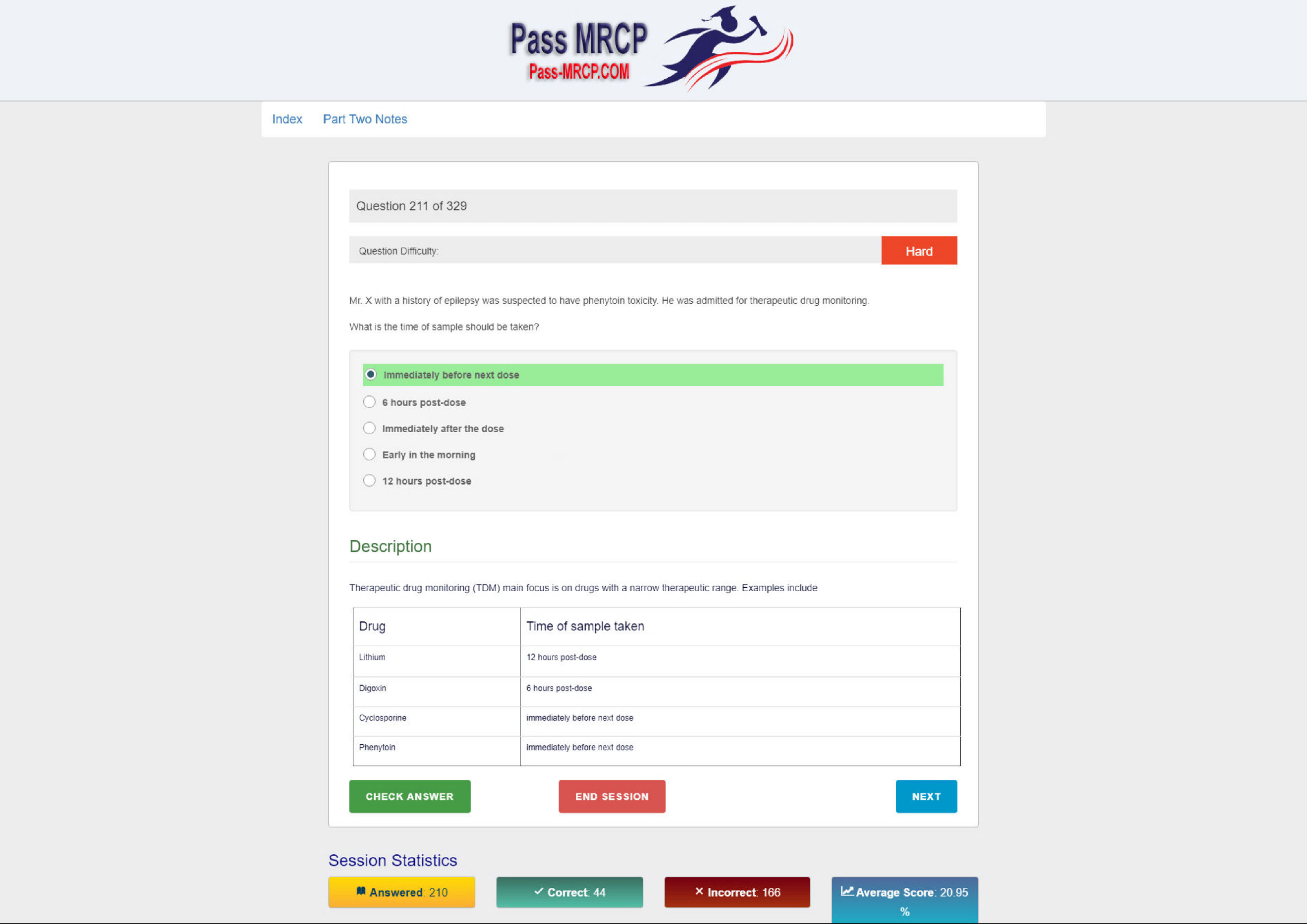
Bupropion is a norepinephrine and dopamine reuptake inhibitor, and nicotinic antagonist. It is one of the most widely prescribed antidepressants.

Bupropion should be started 1 to 2 weeks before the patient target date to stop. Contraindications include:

- Epilepsy
- Pregnancy and breast feeding
- Eating disorders (anorexia/bulimia)

Session Statistics

Answered: 209
Correct: 43
Incorrect: 166
Average Score: 20.57 %



Question 211 of 329

Question Difficulty: **Hard**

Mr. X with a history of epilepsy was suspected to have phenytoin toxicity. He was admitted for therapeutic drug monitoring.

What is the time of sample should be taken?

- ● **Immediately before next dose**
- ○ **6 hours post-dose**
- ○ **Immediately after the dose**
- ○ **Early in the morning**
- ○ **12 hours post-dose**

## Description

Therapeutic drug monitoring (TDM) main focus is on drugs with a narrow therapeutic range. Examples include

| Drug | Time of sample taken |
|---|---|
| Lithium | 12 hours post-dose |
| Digoxin | 6 hours post-dose |
| Cyclosporine | immediately before next dose |
| Phenytoin | immediately before next dose |

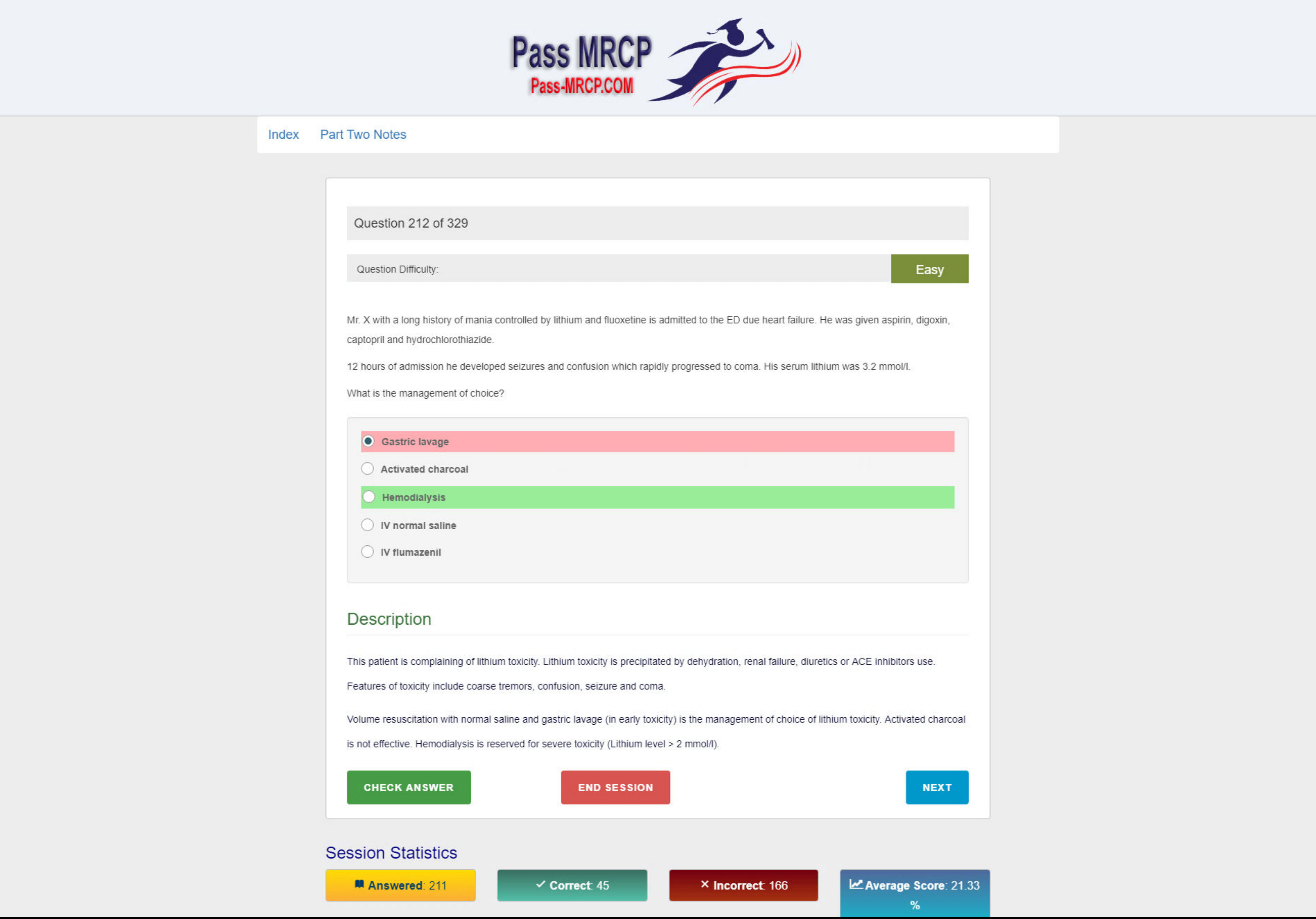
## Session Statistics

**Answered**: 210

✓ **Correct**: 44

✕ **Incorrect**: 166

**Average Score**: 20.95 %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Question Difficulty: **Easy**

Mr. X with a long history of mania controlled by lithium and fluoxetine is admitted to the ED due heart failure. He was given aspirin, digoxin, captopril and hydrochlorothiazide.

12 hours of admission he developed seizures and confusion which rapidly progressed to coma. His serum lithium was 3.2 mmol/l.

What is the management of choice?

- ● **Gastric lavage**
- ○ **Activated charcoal**
- ○ **Hemodialysis**
- ○ **IV normal saline**
- ○ **IV flumazenil**

## Description

This patient is complaining of lithium toxicity. Lithium toxicity is precipitated by dehydration, renal failure, diuretics or ACE inhibitors use.

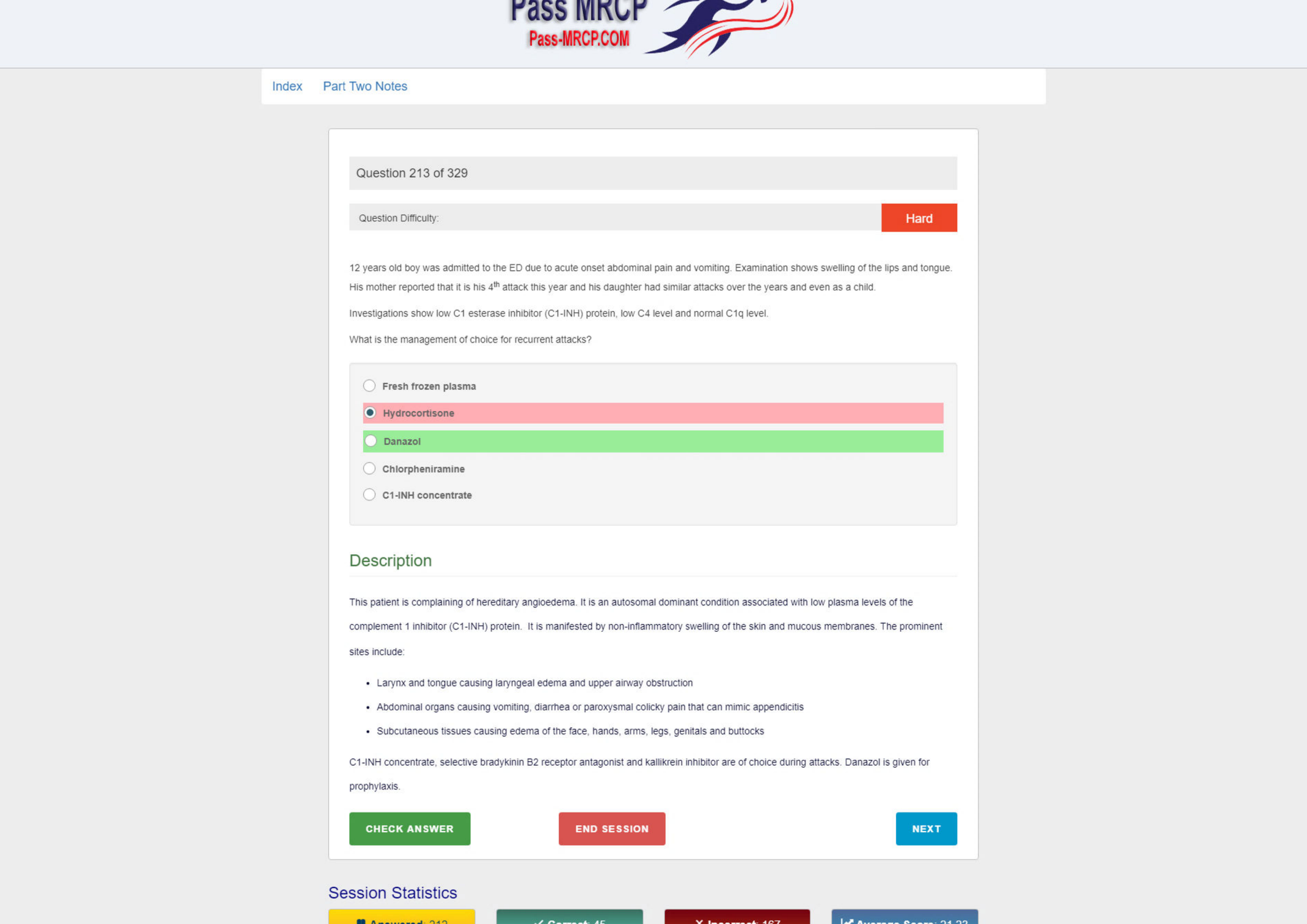
Features of toxicity include coarse tremors, confusion, seizure and coma.

Volume resuscitation with normal saline and gastric lavage (in early toxicity) is the management of choice of lithium toxicity. Activated charcoal is not effective. Hemodialysis is reserved for severe toxicity (Lithium level > 2 mmol/l).

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 211
✓ Correct: 45
✕ Incorrect: 166
Average Score: 21.33 %



Question 213 of 329

Question Difficulty: **Hard**

12 years old boy was admitted to the ED due to acute onset abdominal pain and vomiting. Examination shows swelling of the lips and tongue. His mother reported that it is his 4th attack this year and his daughter had similar attacks over the years and even as a child.

Investigations show low C1 esterase inhibitor (C1-INH) protein, low C4 level and normal C1q level.

What is the management of choice for recurrent attacks?

○ **Fresh frozen plasma**
● **Hydrocortisone**
○ **Danazol**
○ **Chlorpheniramine**
○ **C1-INH concentrate**

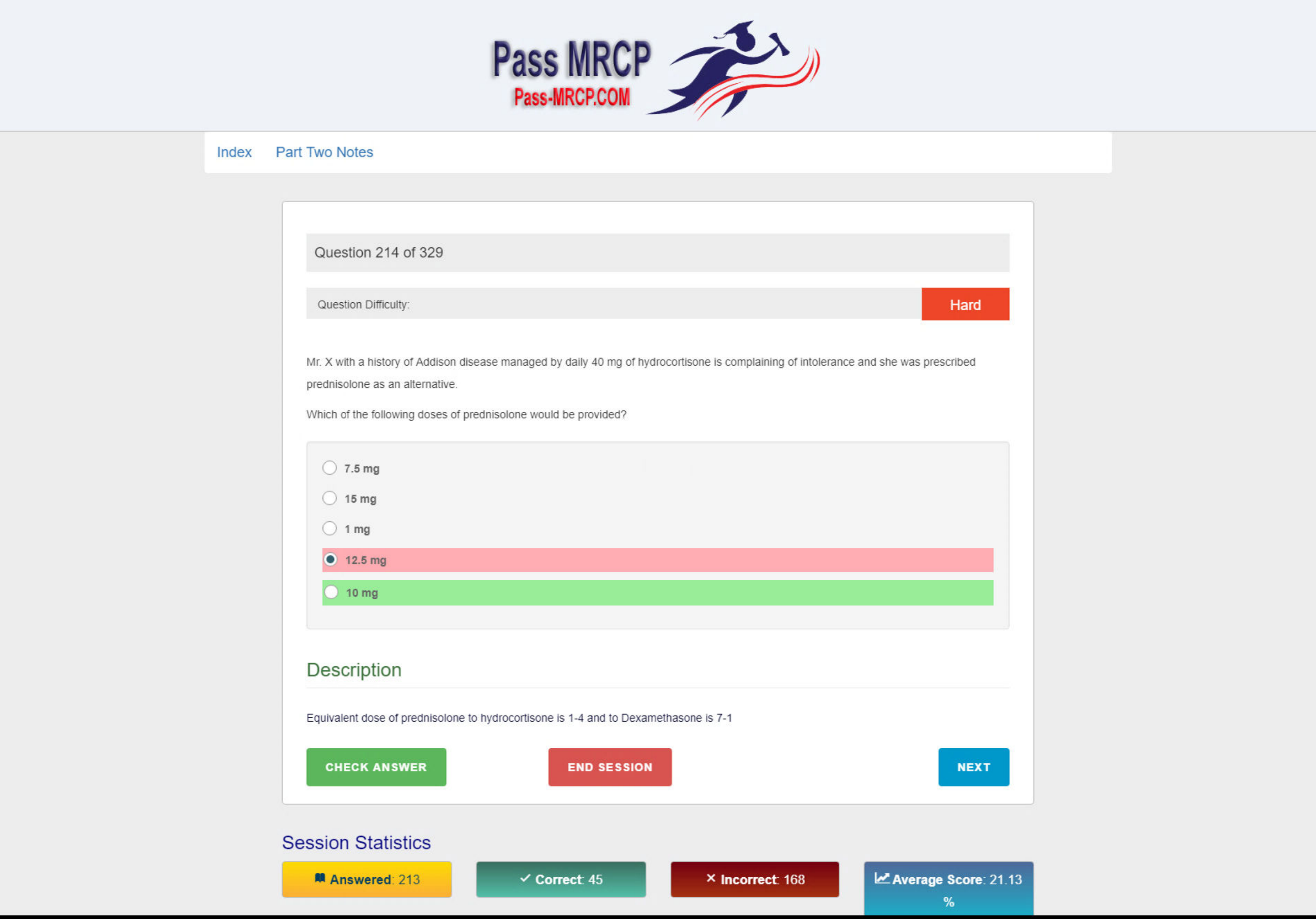
## Description

This patient is complaining of hereditary angioedema. It is an autosomal dominant condition associated with low plasma levels of the complement 1 inhibitor (C1-INH) protein. It is manifested by non-inflammatory swelling of the skin and mucous membranes. The prominent sites include:

- Larynx and tongue causing laryngeal edema and upper airway obstruction
- Abdominal organs causing vomiting, diarrhea or paroxysmal colicky pain that can mimic appendicitis
- Subcutaneous tissues causing edema of the face, hands, arms, legs, genitals and buttocks

C1-INH concentrate, selective bradykinin B2 receptor antagonist and kallikrein inhibitor are of choice during attacks. Danazol is given for prophylaxis.

Session Statistics



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Question 214 of 329

Question Difficulty: **Hard**

Mr. X with a history of Addison disease managed by daily 40 mg of hydrocortisone is complaining of intolerance and she was prescribed prednisolone as an alternative.

Which of the following doses of prednisolone would be provided?

- ○ 7.5 mg
- ○ 15 mg
- ○ 1 mg
- ● 12.5 mg
- ○ 10 mg

## Description

Equivalent dose of prednisolone to hydrocortisone is 1-4 and to Dexamethasone is 7-1

CHECK ANSWER
END SESSION
NEXT

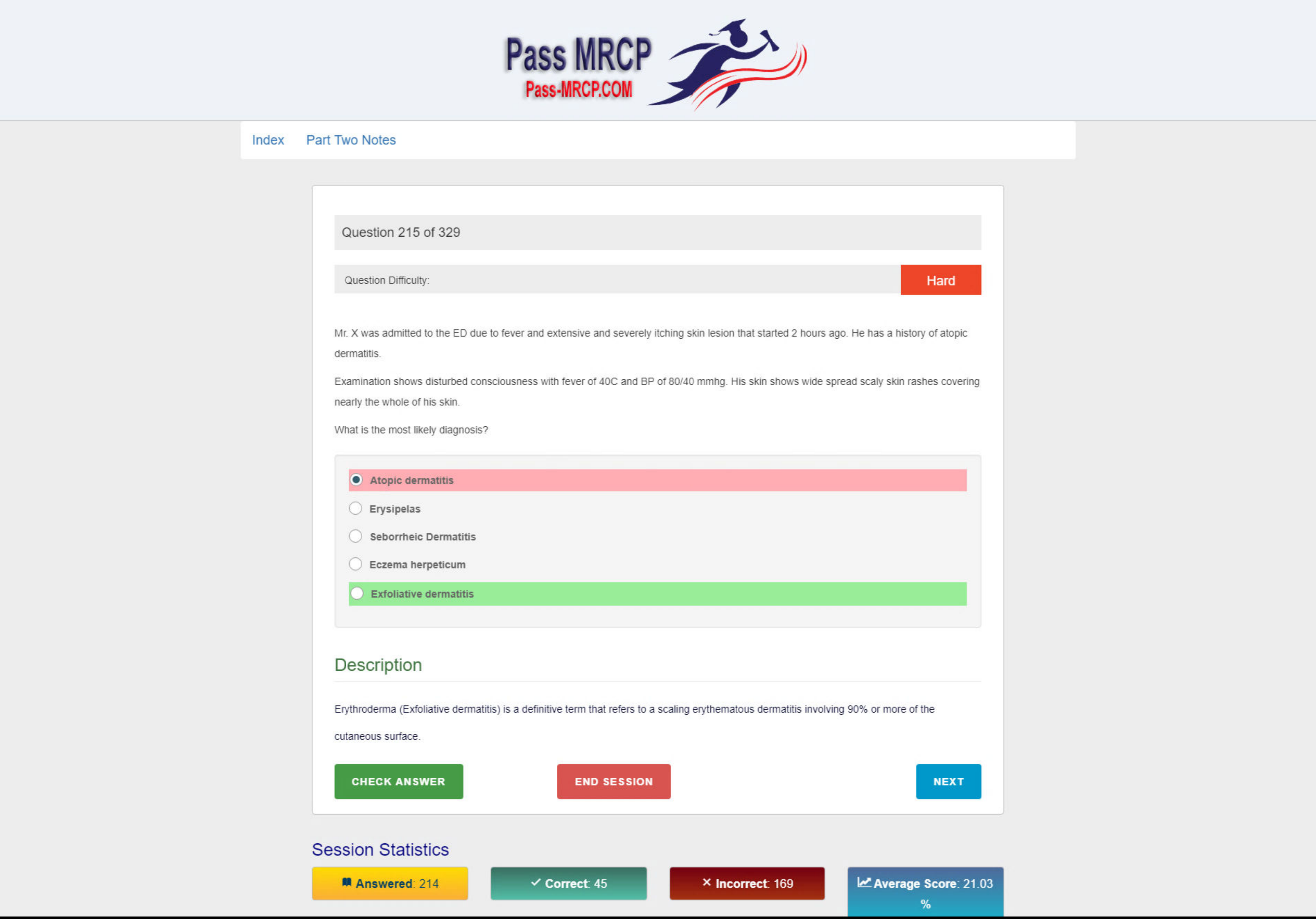
## Session Statistics

**Answered**: 213

✓ **Correct**: 45

✕ **Incorrect**: 168

**Average Score**: 21.13 %



Question 215 of 329

Question Difficulty: Hard

Mr. X was admitted to the ED due to fever and extensive and severely itching skin lesion that started 2 hours ago. He has a history of atopic dermatitis.

Examination shows disturbed consciousness with fever of 40C and BP of 80/40 mmhg. His skin shows wide spread scaly skin rashes covering nearly the whole of his skin.

What is the most likely diagnosis?

- ● **Atopic dermatitis**
- ○ **Erysipelas**
- ○ **Seborrheic Dermatitis**
- ○ **Eczema herpeticum**
- ○ **Exfoliative dermatitis**

## Description

Erythroderma (Exfoliative dermatitis) is a definitive term that refers to a scaling erythematous dermatitis involving 90% or more of the cutaneous surface.

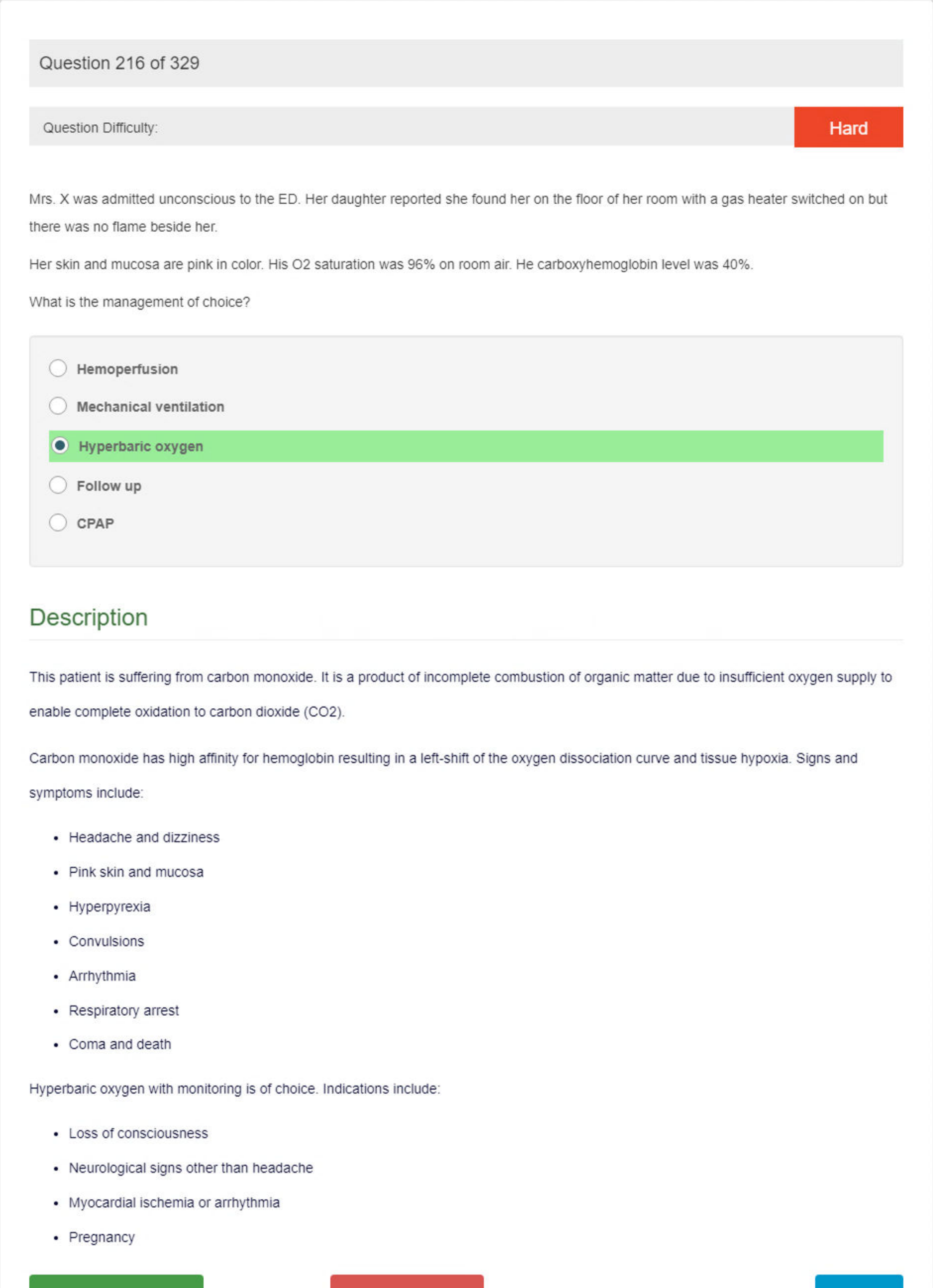
## Session Statistics

**Answered**: 214

✓ **Correct**: 45

× **Incorrect**: 169

**Average Score**: 21.03 %



Question 216 of 329

Question Difficulty: **Hard**

Mrs. X was admitted unconscious to the ED. Her daughter reported she found her on the floor of her room with a gas heater switched on but there was no flame beside her.

Her skin and mucosa are pink in color. His O2 saturation was 96% on room air. He carboxyhemoglobin level was 40%.

What is the management of choice?

○ **Hemoperfusion**

○ **Mechanical ventilation**

● **Hyperbaric oxygen**

○ **Follow up**

○ **CPAP**

## Description

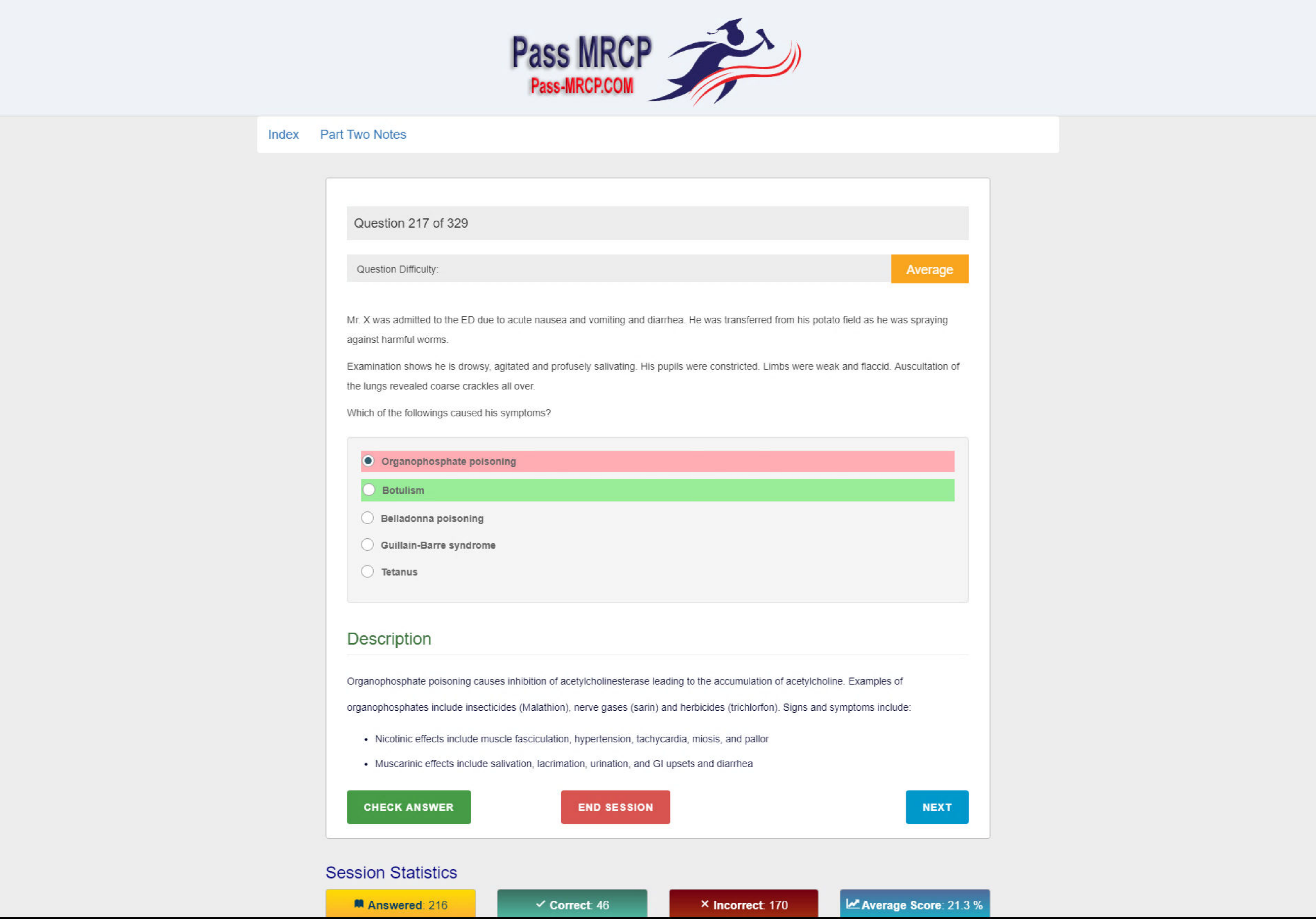
This patient is suffering from carbon monoxide. It is a product of incomplete combustion of organic matter due to insufficient oxygen supply to enable complete oxidation to carbon dioxide (CO2).

Carbon monoxide has high affinity for hemoglobin resulting in a left-shift of the oxygen dissociation curve and tissue hypoxia. Signs and symptoms include:

- Headache and dizziness
- Pink skin and mucosa
- Hyperpyrexia
- Convulsions
- Arrhythmia
- Respiratory arrest
- Coma and death

Hyperbaric oxygen with monitoring is of choice. Indications include:

- Loss of consciousness
- Neurological signs other than headache
- Myocardial ischemia or arrhythmia
- Pregnancy



Question 217 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to acute nausea and vomiting and diarrhea. He was transferred from his potato field as he was spraying against harmful worms.

Examination shows he is drowsy, agitated and profusely salivating. His pupils were constricted. Limbs were weak and flaccid. Auscultation of the lungs revealed coarse crackles all over.

Which of the followings caused his symptoms?

● **Organophosphate poisoning**
○ **Botulism**
○ **Belladonna poisoning**
○ **Guillain-Barre syndrome**
○ **Tetanus**

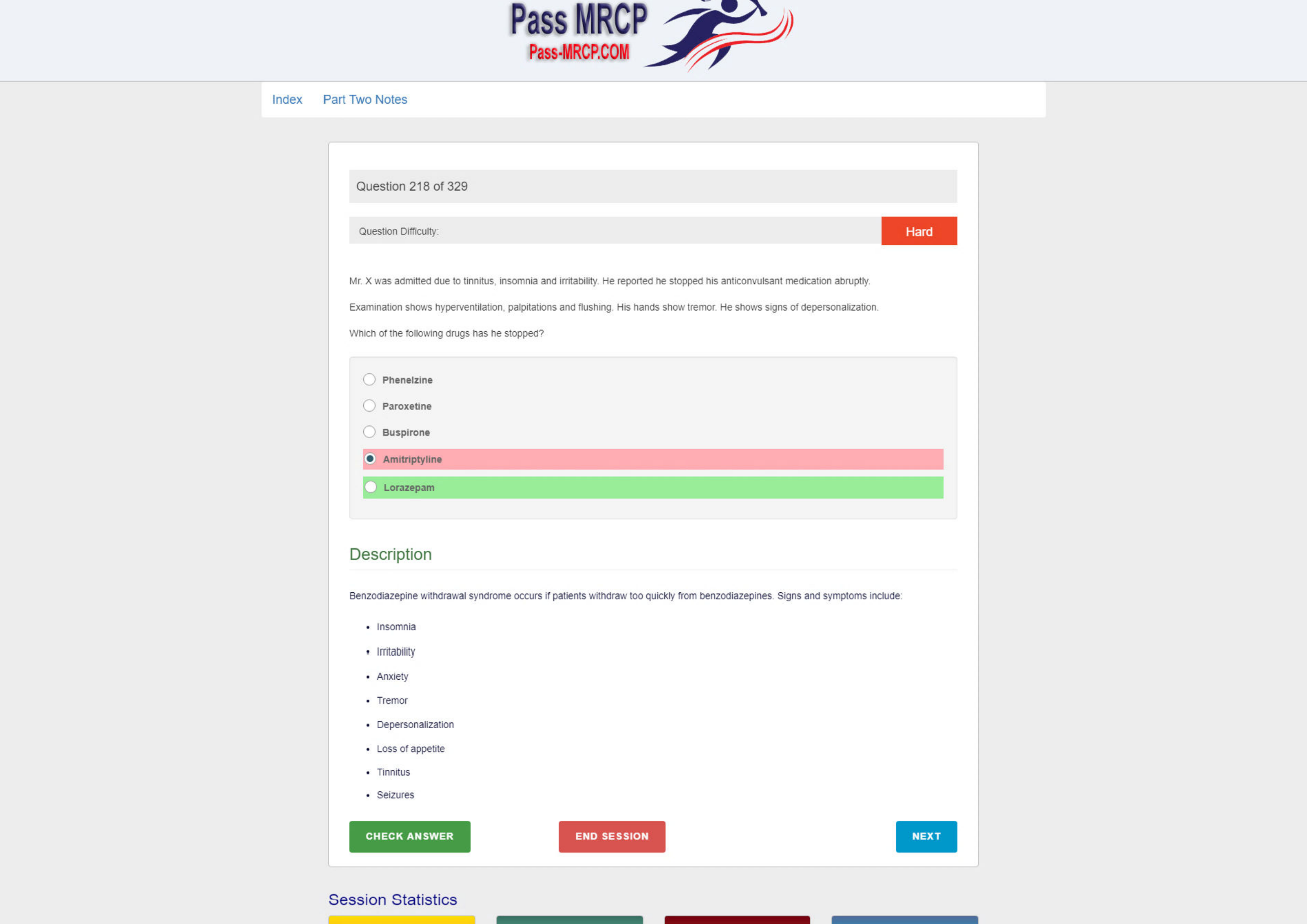
## Description

Organophosphate poisoning causes inhibition of acetylcholinesterase leading to the accumulation of acetylcholine. Examples of organophosphates include insecticides (Malathion), nerve gases (sarin) and herbicides (trichlorfon). Signs and symptoms include:

- Nicotinic effects include muscle fasciculation, hypertension, tachycardia, miosis, and pallor
- Muscarinic effects include salivation, lacrimation, urination, and GI upsets and diarrhea

Session Statistics

**Answered**: 216
✓ **Correct**: 46
✕ **Incorrect**: 170
**Average Score**: 21.3 %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Question Difficulty: Hard

Mr. X was admitted due to tinnitus, insomnia and irritability. He reported he stopped his anticonvulsant medication abruptly.

Examination shows hyperventilation, palpitations and flushing. His hands show tremor. He shows signs of depersonalization.

Which of the following drugs has he stopped?

○ **Phenelzine**
○ **Paroxetine**
○ **Buspirone**
● **Amitriptyline**
○ **Lorazepam**

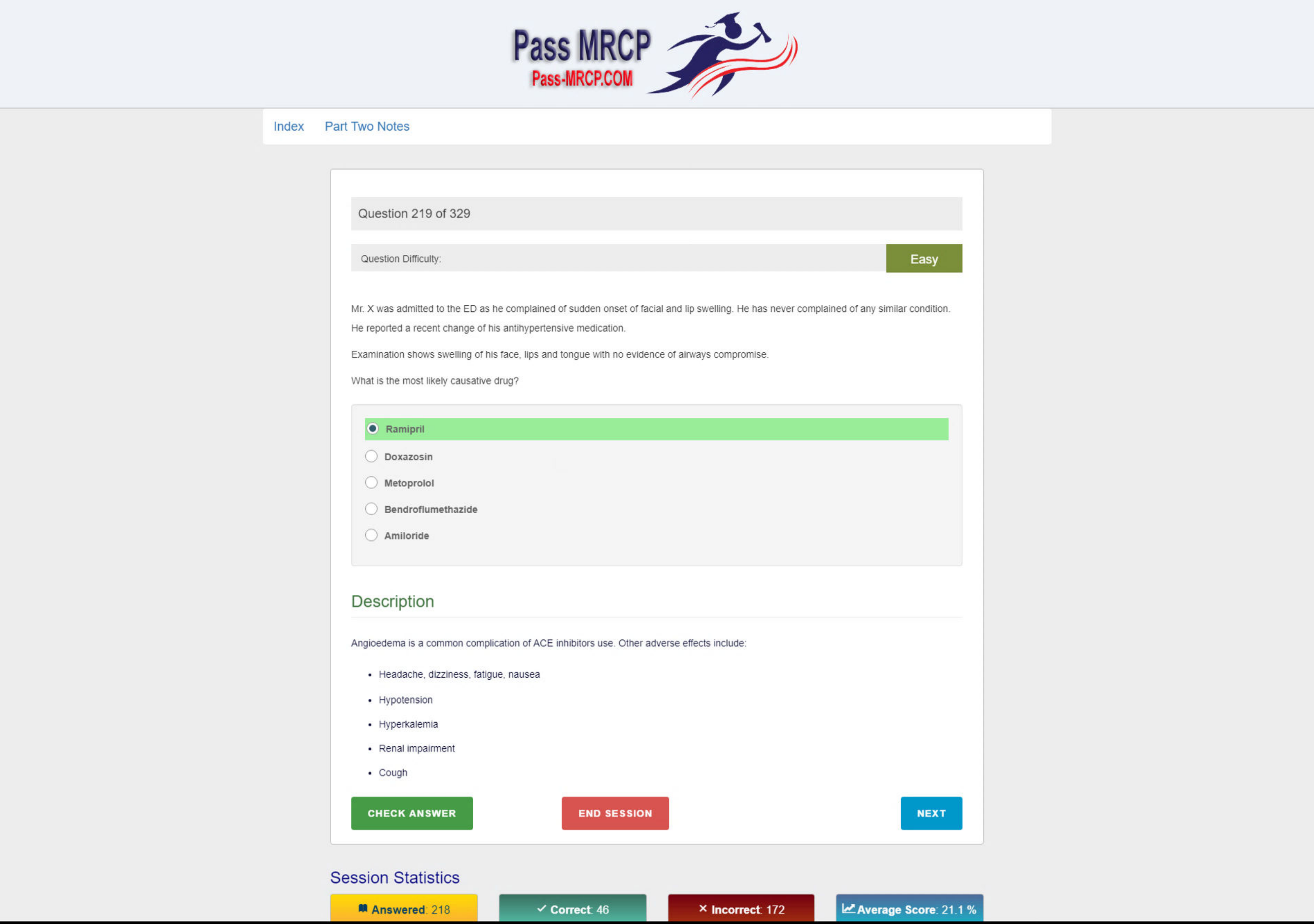
## Description

Benzodiazepine withdrawal syndrome occurs if patients withdraw too quickly from benzodiazepines. Signs and symptoms include:

- Insomnia
- Irritability
- Anxiety
- Tremor
- Depersonalization
- Loss of appetite
- Tinnitus
- Seizures

CHECK ANSWER
END SESSION
NEXT

Session Statistics



Question 219 of 329

Question Difficulty: Easy

Mr. X was admitted to the ED as he complained of sudden onset of facial and lip swelling. He has never complained of any similar condition. He reported a recent change of his antihypertensive medication.

Examination shows swelling of his face, lips and tongue with no evidence of airways compromise.

What is the most likely causative drug?

● **Ramipril**
○ **Doxazosin**
○ **Metoprolol**
○ **Bendroflumethazide**
○ **Amiloride**

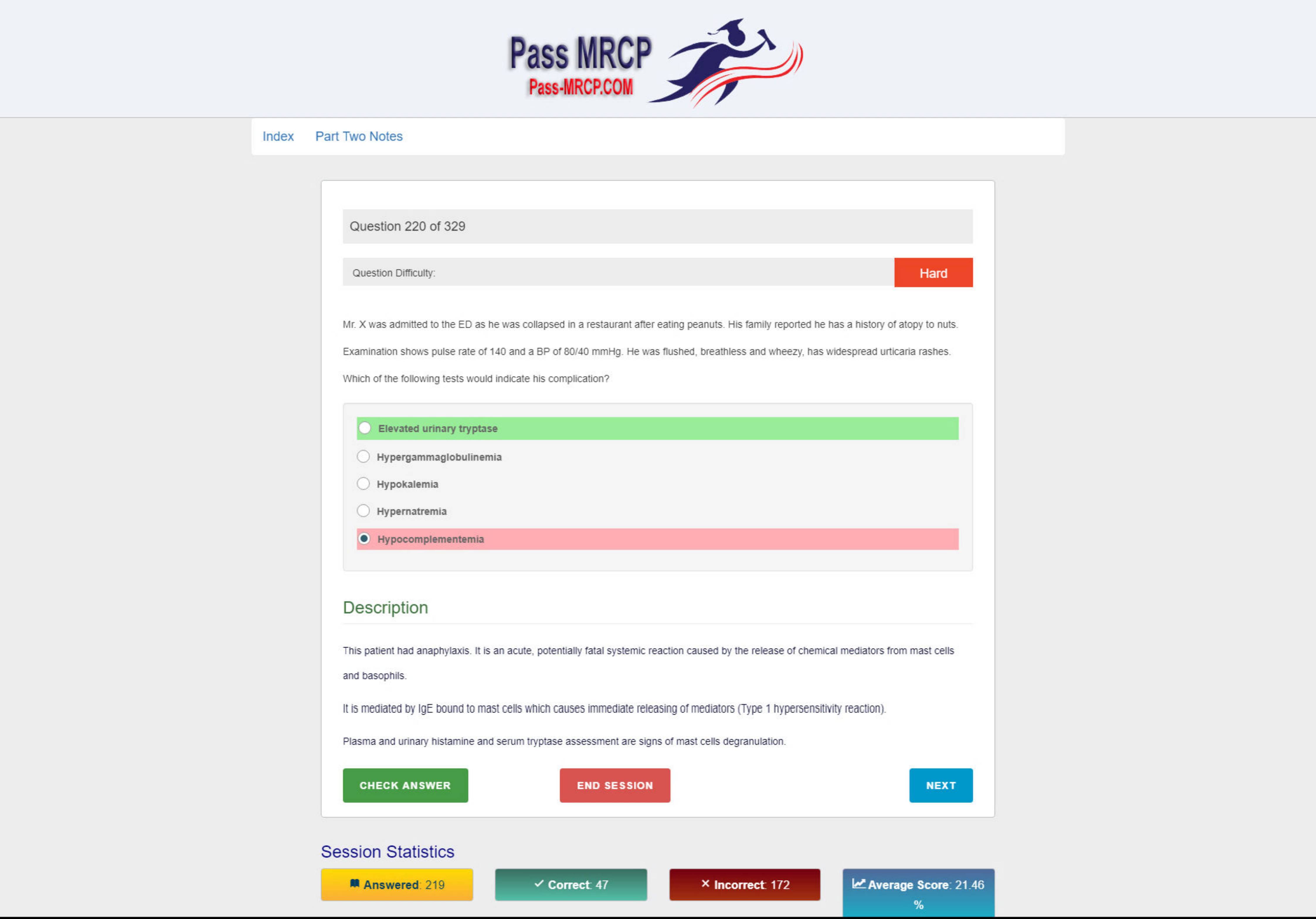
## Description

Angioedema is a common complication of ACE inhibitors use. Other adverse effects include:

- Headache, dizziness, fatigue, nausea
- Hypotension
- Hyperkalemia
- Renal impairment
- Cough

## Session Statistics

**Answered**: 218
✓ **Correct**: 46
✕ **Incorrect**: 172
**Average Score**: 21.1 %



Question 220 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED as he was collapsed in a restaurant after eating peanuts. His family reported he has a history of atopy to nuts.

Examination shows pulse rate of 140 and a BP of 80/40 mmHg. He was flushed, breathless and wheezy, has widespread urticaria rashes.

Which of the following tests would indicate his complication?

- ○ **Elevated urinary tryptase**
- ○ **Hypergammaglobulinemia**
- ○ **Hypokalemia**
- ○ **Hypernatremia**
- ● **Hypocomplementemia**

## Description

This patient had anaphylaxis. It is an acute, potentially fatal systemic reaction caused by the release of chemical mediators from mast cells and basophils.

It is mediated by IgE bound to mast cells which causes immediate releasing of mediators (Type 1 hypersensitivity reaction).

Plasma and urinary histamine and serum tryptase assessment are signs of mast cells degranulation.

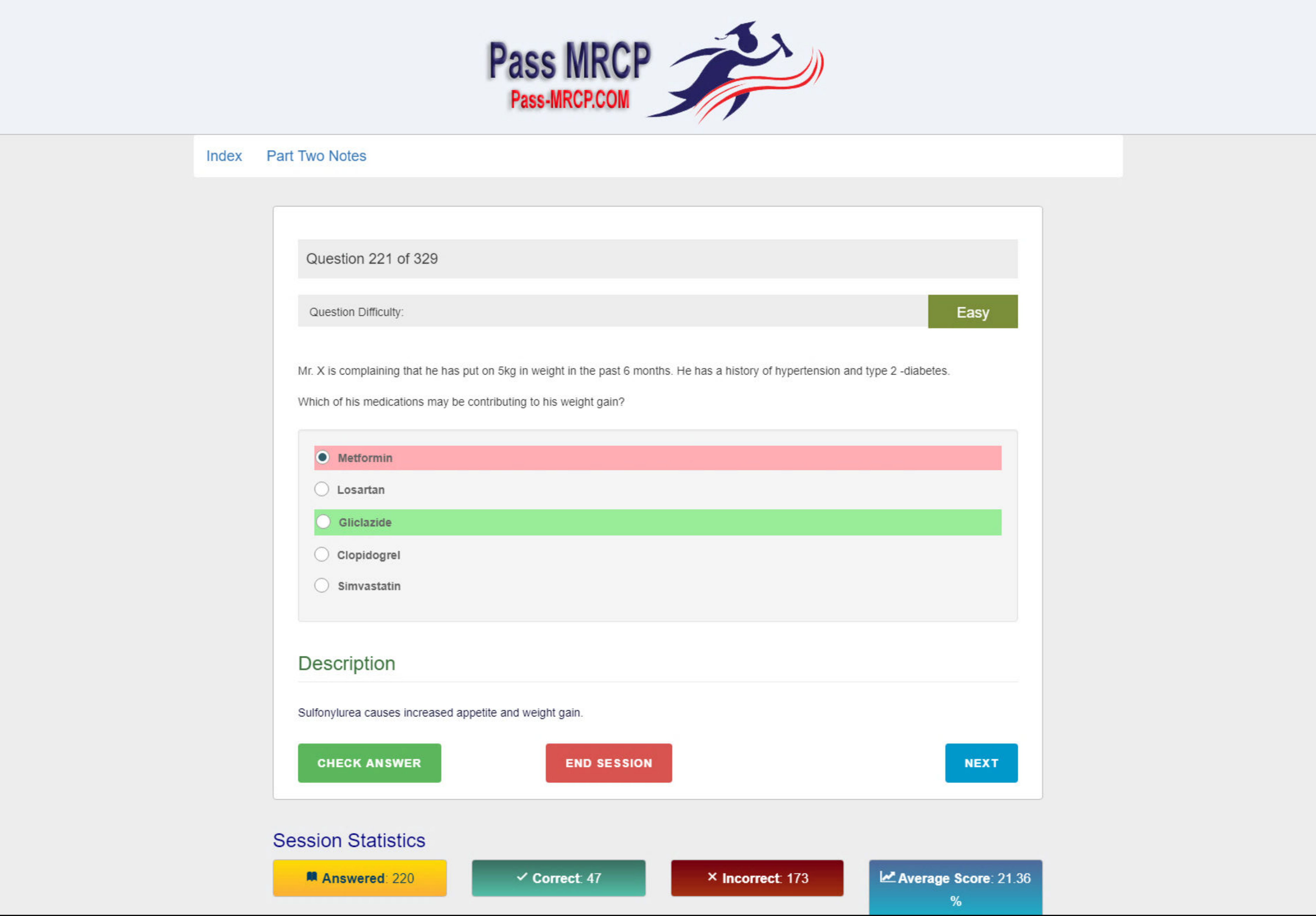
Session Statistics

**Answered**: 219

✓ **Correct**: 47

× **Incorrect**: 172

**Average Score**: 21.46 %



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Question 221 of 329

Question Difficulty: **Easy**

Mr. X is complaining that he has put on 5kg in weight in the past 6 months. He has a history of hypertension and type 2 -diabetes.

Which of his medications may be contributing to his weight gain?

- ● **Metformin**
- ○ **Losartan**
- ○ **Gliclazide**
- ○ **Clopidogrel**
- ○ **Simvastatin**

## Description

Sulfonylurea causes increased appetite and weight gain.

CHECK ANSWER
END SESSION
NEXT

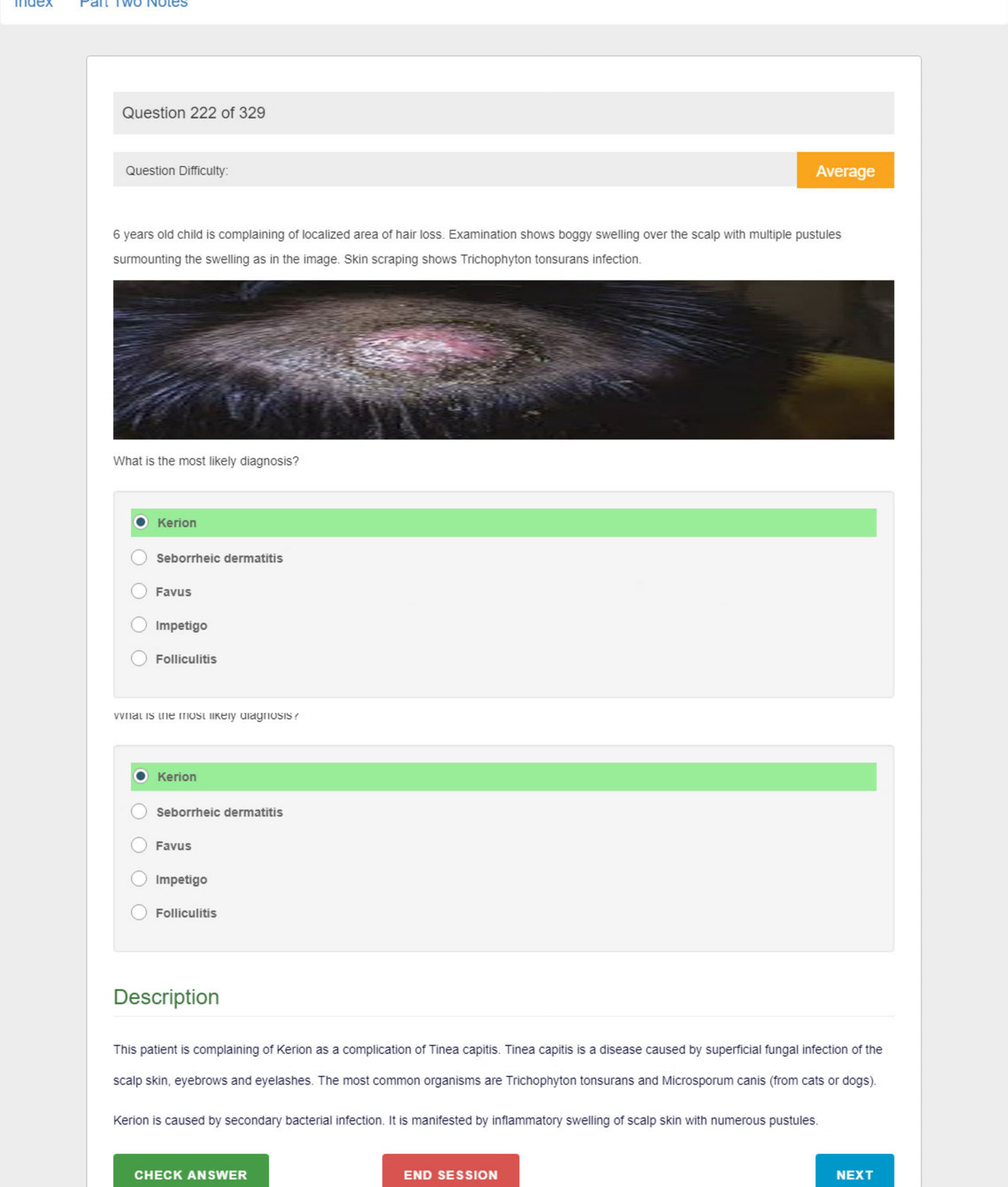
## Session Statistics

**Answered**: 220

✓ **Correct**: 47

× **Incorrect**: 173

**Average Score**: 21.36 %



Question 222 of 329

Question Difficulty: Average

6 years old child is complaining of localized area of hair loss. Examination shows boggy swelling over the scalp with multiple pustules surmounting the swelling as in the image. Skin scraping shows Trichophyton tonsurans infection.

What is the most likely diagnosis?

- ● **Kerion**
- ○ **Seborrheic dermatitis**
- ○ **Favus**
- ○ **Impetigo**
- ○ **Folliculitis**

What is the most likely diagnosis?

- ● **Kerion**
- ○ **Seborrheic dermatitis**
- ○ **Favus**
- ○ **Impetigo**
- ○ **Folliculitis**

## Description

This patient is complaining of Kerion as a complication of Tinea capitis. Tinea capitis is a disease caused by superficial fungal infection of the scalp skin, eyebrows and eyelashes. The most common organisms are Trichophyton tonsurans and Microsporum canis (from cats or dogs).

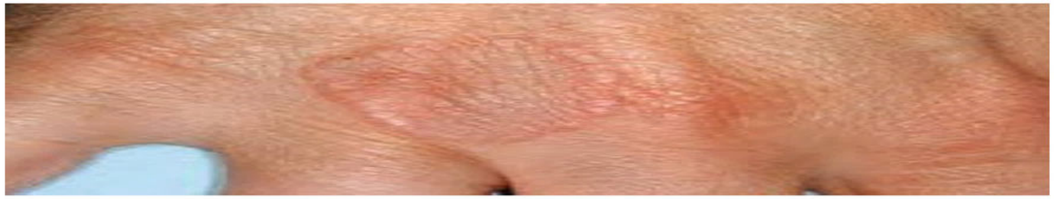
Kerion is caused by secondary bacterial infection. It is manifested by inflammatory swelling of scalp skin with numerous pustules.

Question 223 of 329

Question Difficulty: **Average**

Mr. X is complaining of painless lesion on the dorsum of his left hand. He has no medical history except 10 years of type-2 diabetes.

Examination shows the lesion in the picture with associated raised border.



What is the most likely diagnosis?

- ○ **Scabies infection**
- ○ **Psoriasis**
- ● **Necrobiosis lipoidica**
- ○ **Pyoderma gangrenosum**
- ○ **Granuloma annulare**

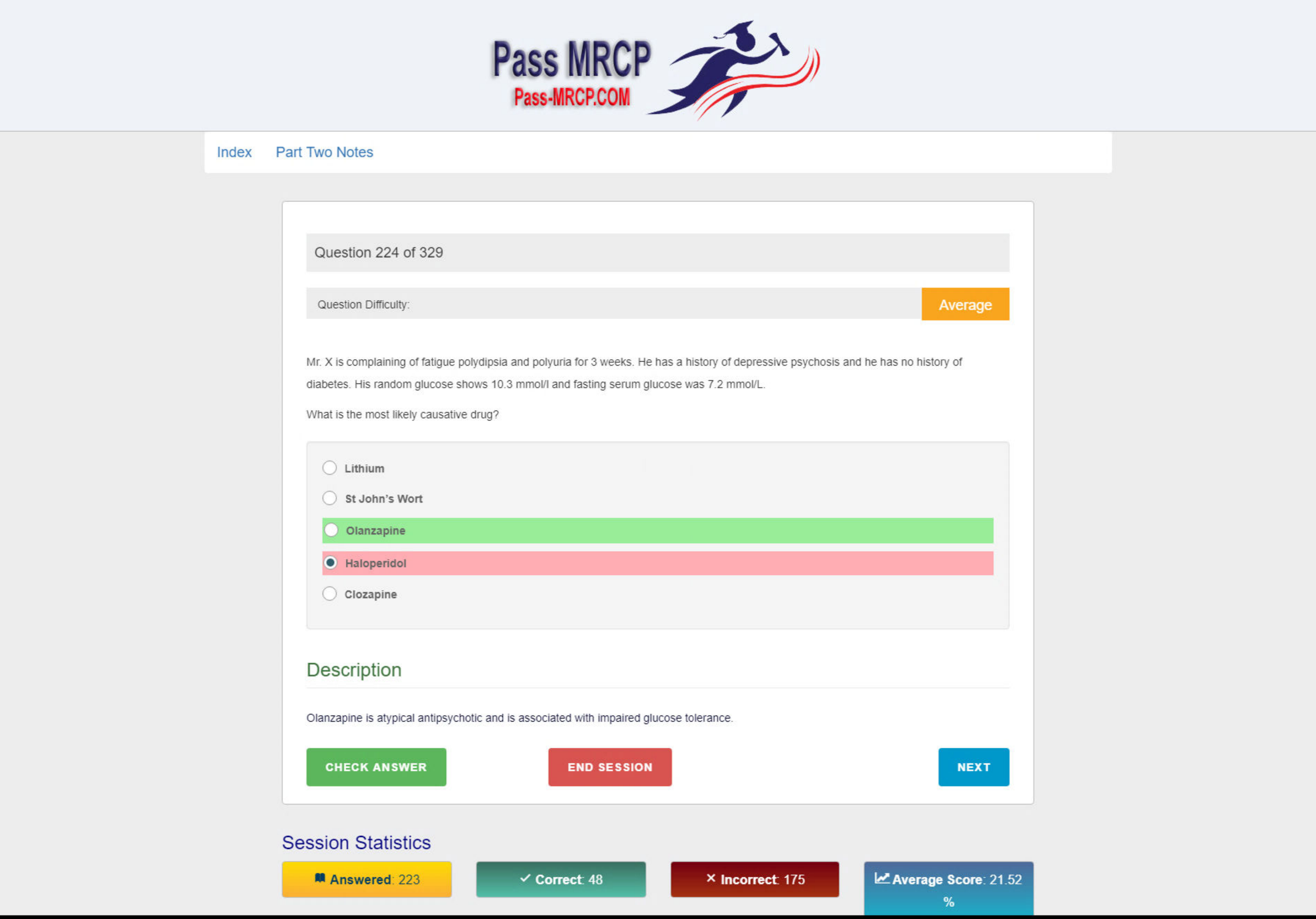
What is the most likely diagnosis?

- ○ **Scabies infection**
- ○ **Psoriasis**
- ● **Necrobiosis lipoidica**
- ○ **Pyoderma gangrenosum**
- ○ **Granuloma annulare**

## Description

Granuloma annulare (GA) is a benign inflammatory dermatosis with unknown cause that occurs in all age groups except in infancy. It is frequently associated with diabetes mellitus, lymphoma and HIV infection. It is manifested by:

- Skin-colored to violaceous, depressed centrally dermal papules or annular plaques reaching up to 5 cm in diameter
- Common locations are the dorsal surfaces of the hands and feet and the extensor aspects of the arms and legs.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Question 224 of 329

Question Difficulty: **Average**

Mr. X is complaining of fatigue polydipsia and polyuria for 3 weeks. He has a history of depressive psychosis and he has no history of diabetes. His random glucose shows 10.3 mmol/l and fasting serum glucose was 7.2 mmol/L.

What is the most likely causative drug?

○ **Lithium**
○ **St John's Wort**
○ **Olanzapine**
● **Haloperidol**
○ **Clozapine**

## Description

Olanzapine is atypical antipsychotic and is associated with impaired glucose tolerance.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

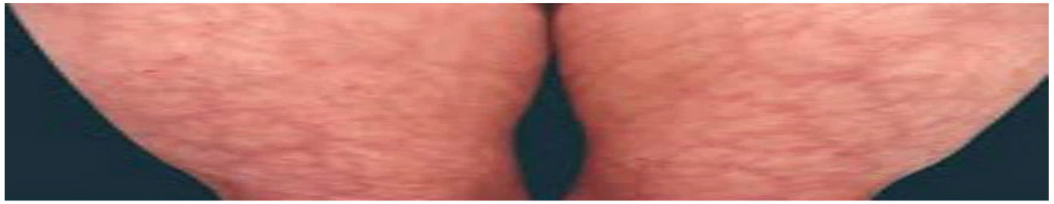
**Answered**: 223
✓ **Correct**: 48
✕ **Incorrect**: 175
**Average Score**: 21.52 %

Question 225 of 329

Question Difficulty: **Average**

Mr. X with a long history of history of Rheumatoid arthritis was referred to the dermatologist due to lower limbs skin lesions.

Examination shows the lesion on the image shown. It symmetrical on both limbs and it is more prominent in cold weather.



What is the likely diagnosis?

- ○ **Livedo reticularis**
- ● **Necrobiosis Lipoidica**
- ○ **Erythema marginatum**
- ○ **Erythema nodosum**
- ○ **Pyoderma gangrenosum**

What is the likely diagnosis?

- ○ **Livedo reticularis**
- ● **Necrobiosis Lipoidica**
- ○ **Erythema marginatum**
- ○ **Erythema nodosum**
- ○ **Pyoderma gangrenosum**

## Description

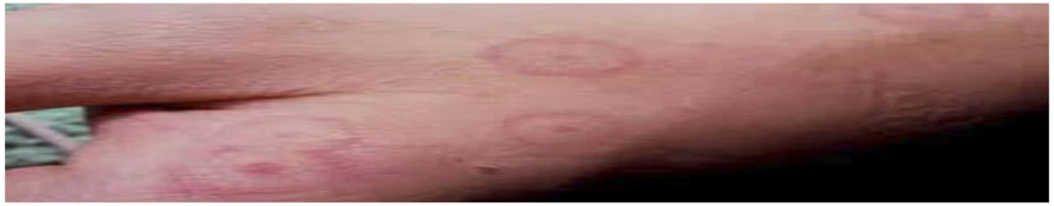
Livedo reticularis is a common skin finding consisting of a mottled reticulated vascular pattern that appears as a lace-like purplish discoloration of the skin. It is caused by swelling of the venules due to obstruction of capillaries by thrombi.

**CHECK ANSWER** **END SESSION** **NEXT**

Question 226 of 329

Question Difficulty: **Average**

Mr. X was admitted due to atypical pneumonia. Investigations confirmed Mycoplasma infection. 3 days of admission he developed skin lesion on his hands. Examination shows the lesions on the image.



What is the most likely diagnosis?

- ○ **Granuloma annulare**
- ○ **Weber Christian disease**
- ○ **Erythema nodosum**
- ○ **Pityriasis rosea**
- ● **Erythema multiforme**

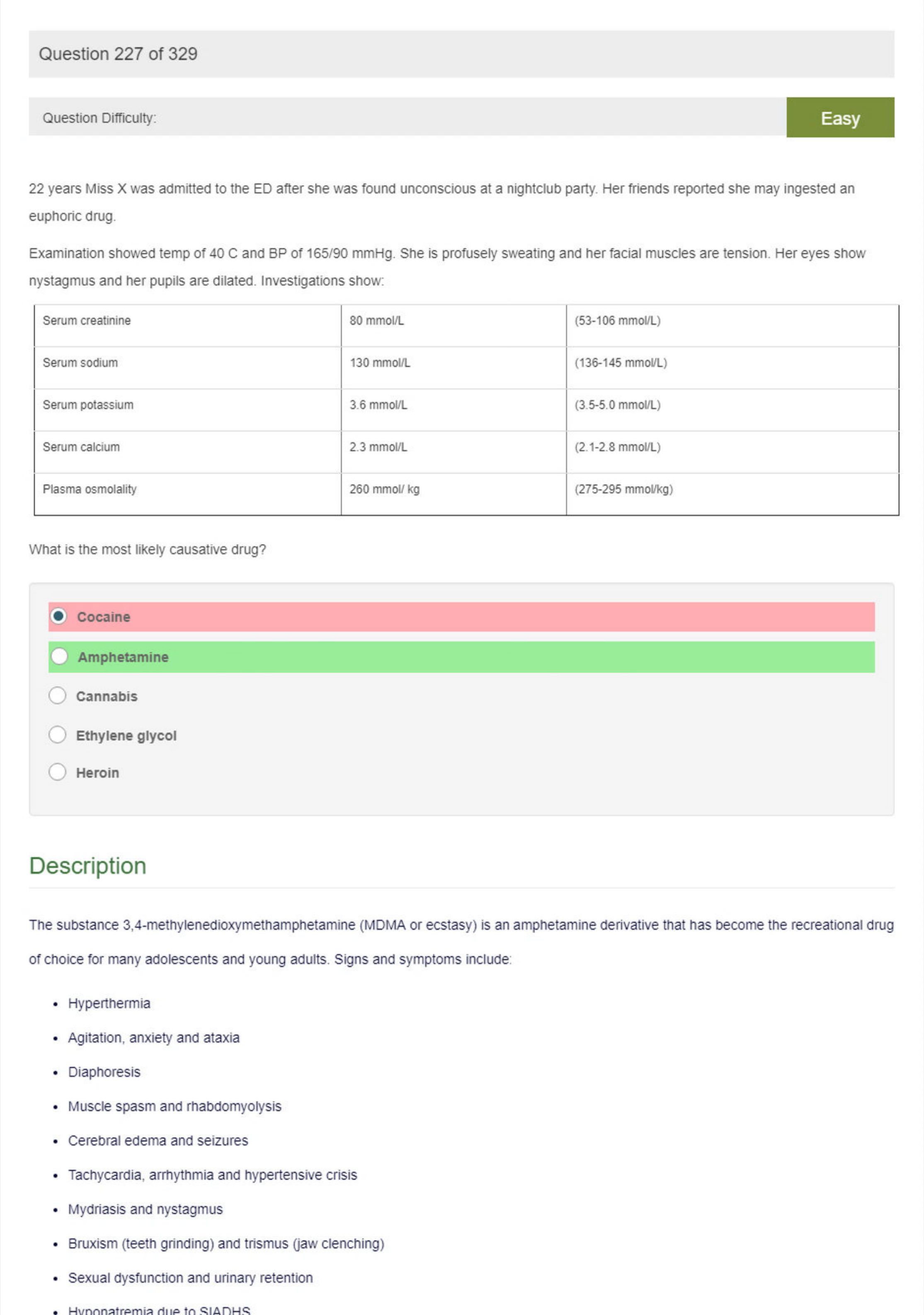
- ○ **Granuloma annulare**
- ○ **Weber Christian disease**
- ○ **Erythema nodosum**
- ○ **Pityriasis rosea**
- ● **Erythema multiforme**

## Description

This patient is complaining of erythema multiforme. It is manifested by target lesions of the skin (central area of dusky erythema, a middle paler zone of edema and an outer erythematous ring) located on the back of the hands, feet and trunk with minimal or no mucosal involvement.

Mycoplasma infection is a common cause of erythema multiforme.

**CHECK ANSWER** **END SESSION** **NEXT**



## Question 227 of 329

Question Difficulty: **Easy**

22 years Miss X was admitted to the ED after she was found unconscious at a nightclub party. Her friends reported she may ingested an euphoric drug.

Examination showed temp of 40 C and BP of 165/90 mmHg. She is profusely sweating and her facial muscles are tension. Her eyes show nystagmus and her pupils are dilated. Investigations show:

| | | |
|---|---|---|
| Serum creatinine | 80 mmol/L | (53-106 mmol/L) |
| Serum sodium | 130 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3.6 mmol/L | (3.5-5.0 mmol/L) |
| Serum calcium | 2.3 mmol/L | (2.1-2.8 mmol/L) |
| Plasma osmolality | 260 mmol/ kg | (275-295 mmol/kg) |

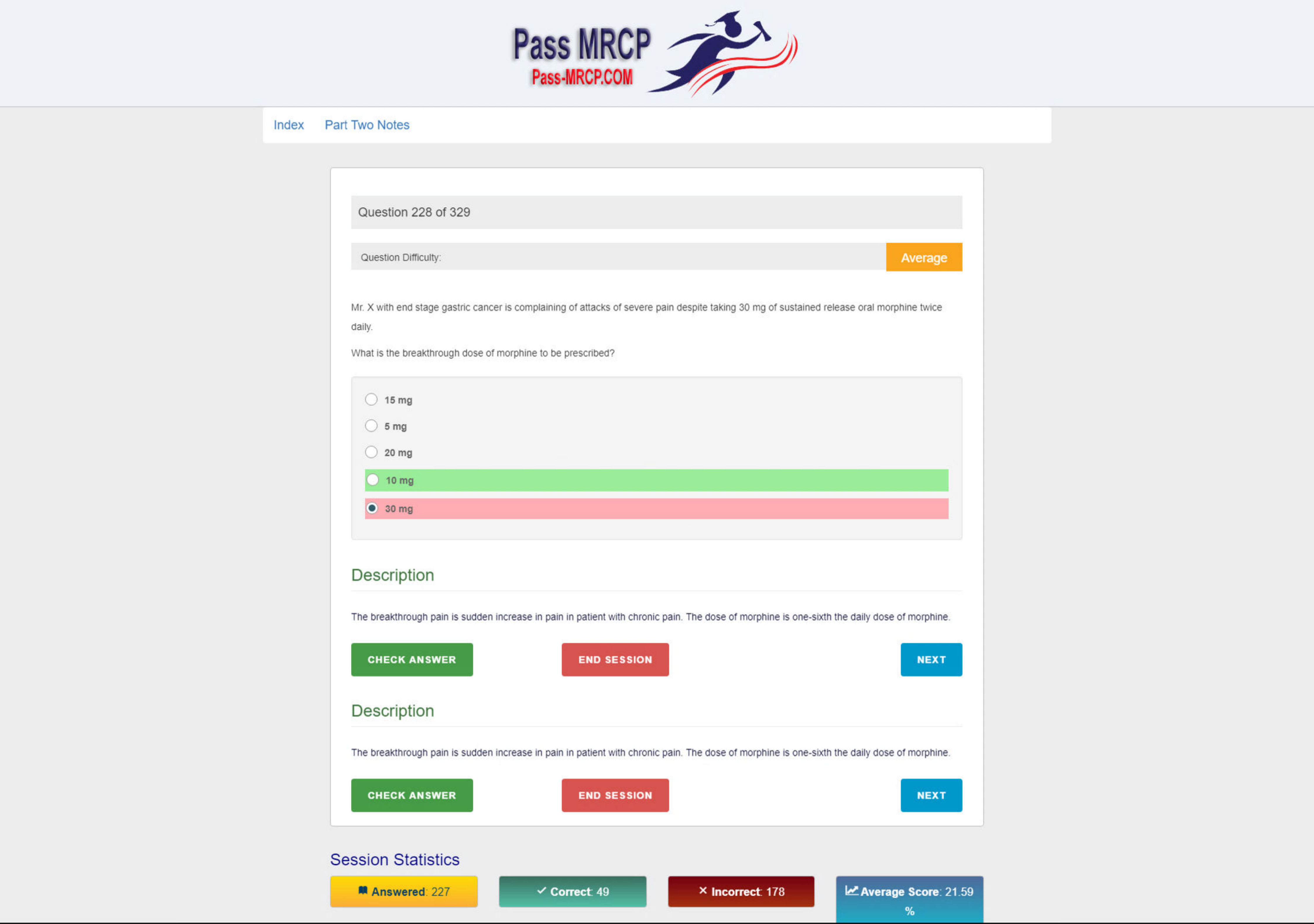
What is the most likely causative drug?

● **Cocaine**
○ **Amphetamine**
○ **Cannabis**
○ **Ethylene glycol**
○ **Heroin**

## Description

The substance 3,4-methylenedioxymethamphetamine (MDMA or ecstasy) is an amphetamine derivative that has become the recreational drug of choice for many adolescents and young adults. Signs and symptoms include:

- Hyperthermia
- Agitation, anxiety and ataxia
- Diaphoresis
- Muscle spasm and rhabdomyolysis
- Cerebral edema and seizures
- Tachycardia, arrhythmia and hypertensive crisis
- Mydriasis and nystagmus
- Bruxism (teeth grinding) and trismus (jaw clenching)
- Sexual dysfunction and urinary retention
- Hyponatremia due to SIADHS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Question 228 of 329

Question Difficulty: Average

Mr. X with end stage gastric cancer is complaining of attacks of severe pain despite taking 30 mg of sustained release oral morphine twice daily.

What is the breakthrough dose of morphine to be prescribed?

○ 15 mg
○ 5 mg
○ 20 mg
○ 10 mg
● 30 mg

## Description

The breakthrough pain is sudden increase in pain in patient with chronic pain. The dose of morphine is one-sixth the daily dose of morphine.

CHECK ANSWER
END SESSION
NEXT

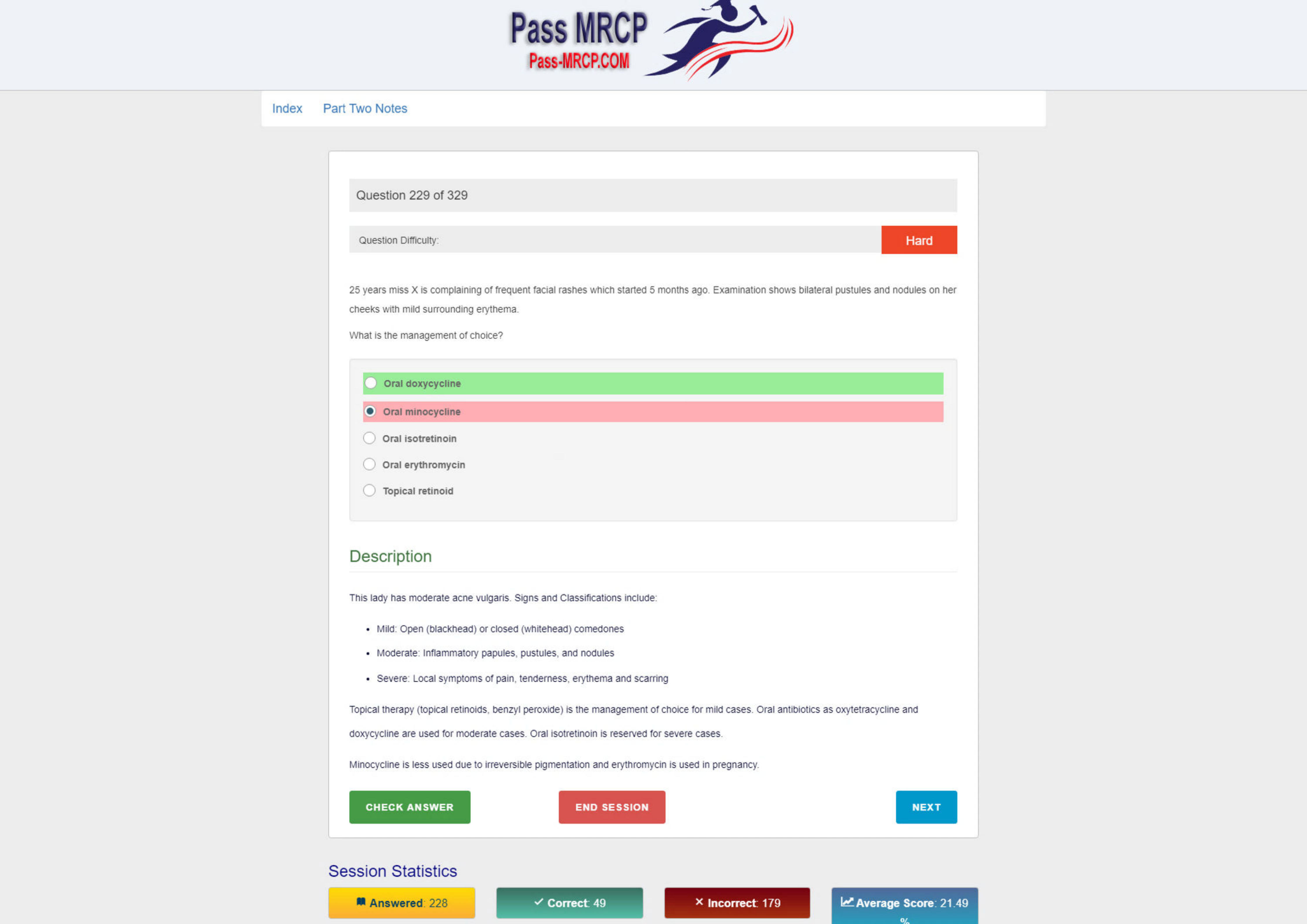
Description

The breakthrough pain is sudden increase in pain in patient with chronic pain. The dose of morphine is one-sixth the daily dose of morphine.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 227
✓ Correct: 49
✕ Incorrect: 178
Average Score: 21.59 %



Question 229 of 329

Question Difficulty: Hard

25 years miss X is complaining of frequent facial rashes which started 5 months ago. Examination shows bilateral pustules and nodules on her cheeks with mild surrounding erythema.

What is the management of choice?

○ **Oral doxycycline** 🟩

● **Oral minocycline** 🟥

○ **Oral isotretinoin**

○ **Oral erythromycin**

○ **Topical retinoid**

## Description

This lady has moderate acne vulgaris. Signs and Classifications include:

- Mild: Open (blackhead) or closed (whitehead) comedones
- Moderate: Inflammatory papules, pustules, and nodules
- Severe: Local symptoms of pain, tenderness, erythema and scarring

Topical therapy (topical retinoids, benzyl peroxide) is the management of choice for mild cases. Oral antibiotics as oxytetracycline and doxycycline are used for moderate cases. Oral isotretinoin is reserved for severe cases.

Minocycline is less used due to irreversible pigmentation and erythromycin is used in pregnancy.

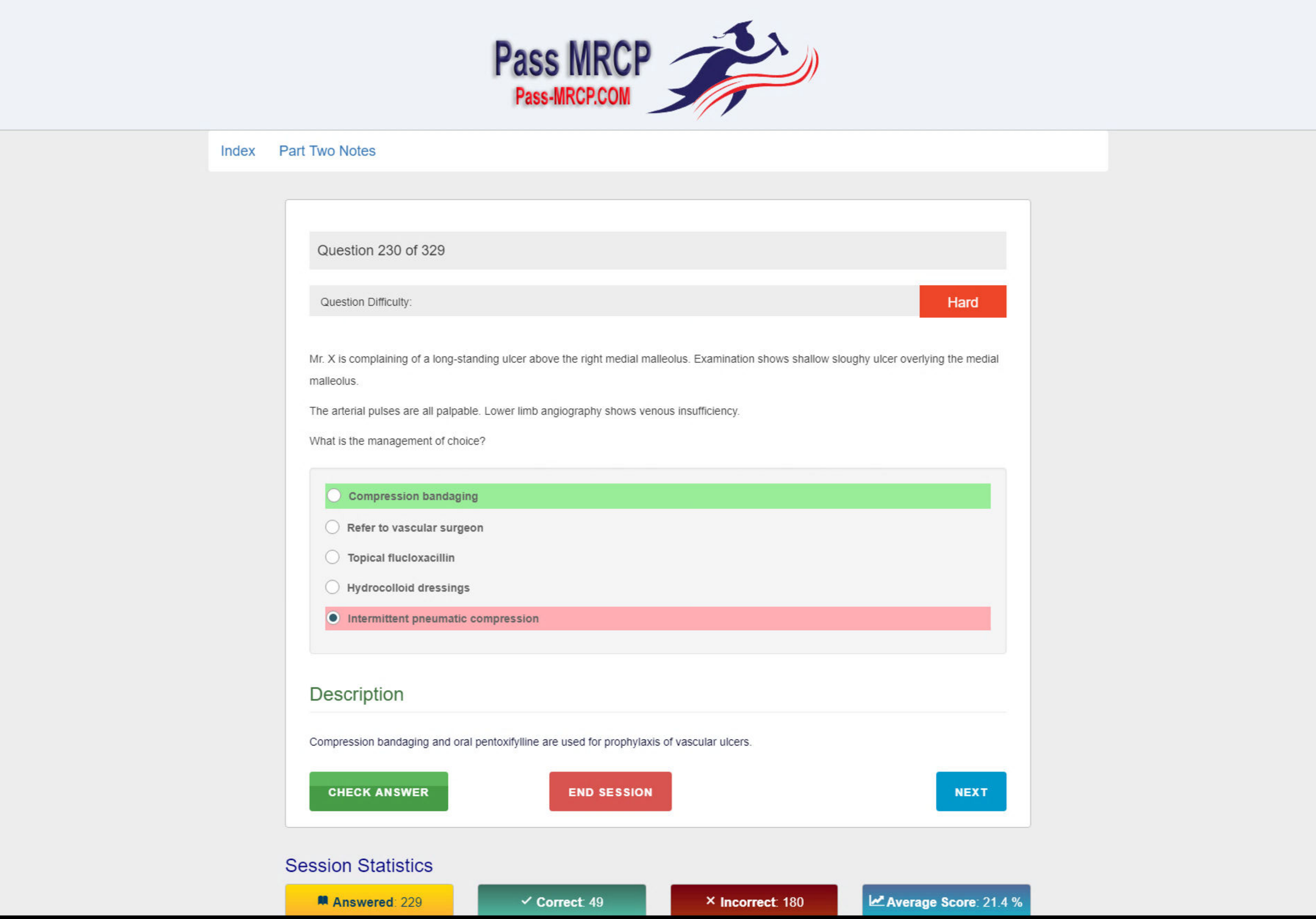
Session Statistics

**Answered**: 228

✓ **Correct**: 49

✕ **Incorrect**: 179

**Average Score**: 21.49 %



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Question 230 of 329

Question Difficulty: Hard

Mr. X is complaining of a long-standing ulcer above the right medial malleolus. Examination shows shallow sloughy ulcer overlying the medial malleolus.

The arterial pulses are all palpable. Lower limb angiography shows venous insufficiency.

What is the management of choice?

- ○ **Compression bandaging**
- ○ **Refer to vascular surgeon**
- ○ **Topical flucloxacillin**
- ○ **Hydrocolloid dressings**
- ● **Intermittent pneumatic compression**

## Description

Compression bandaging and oral pentoxifylline are used for prophylaxis of vascular ulcers.

CHECK ANSWER
END SESSION
NEXT

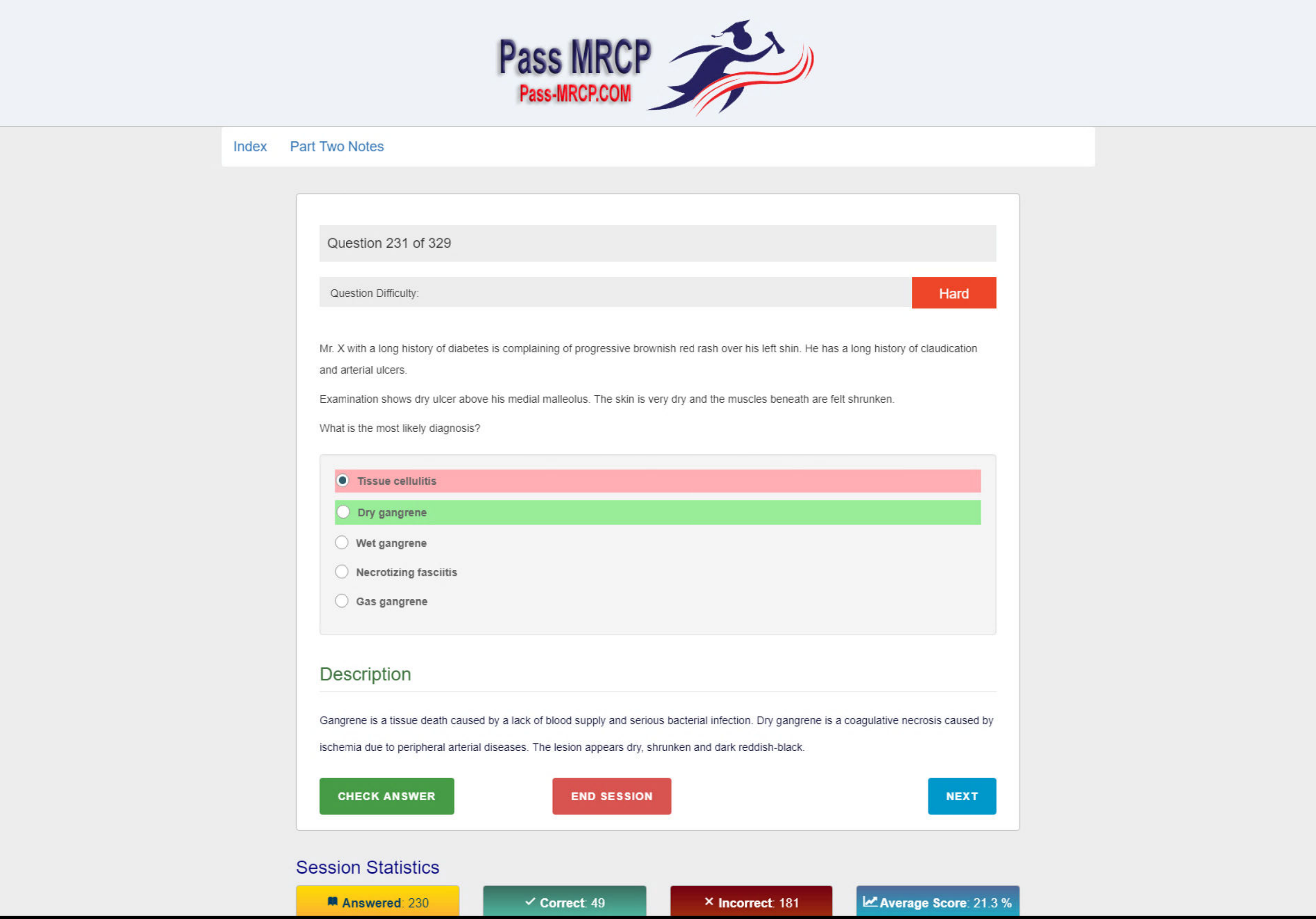
## Session Statistics

**Answered**: 229

✓ **Correct**: 49

✕ **Incorrect**: 180

**Average Score**: 21.4 %



Question 231 of 329

Question Difficulty: Hard

Mr. X with a long history of diabetes is complaining of progressive brownish red rash over his left shin. He has a long history of claudication and arterial ulcers.

Examination shows dry ulcer above his medial malleolus. The skin is very dry and the muscles beneath are felt shrunken.

What is the most likely diagnosis?

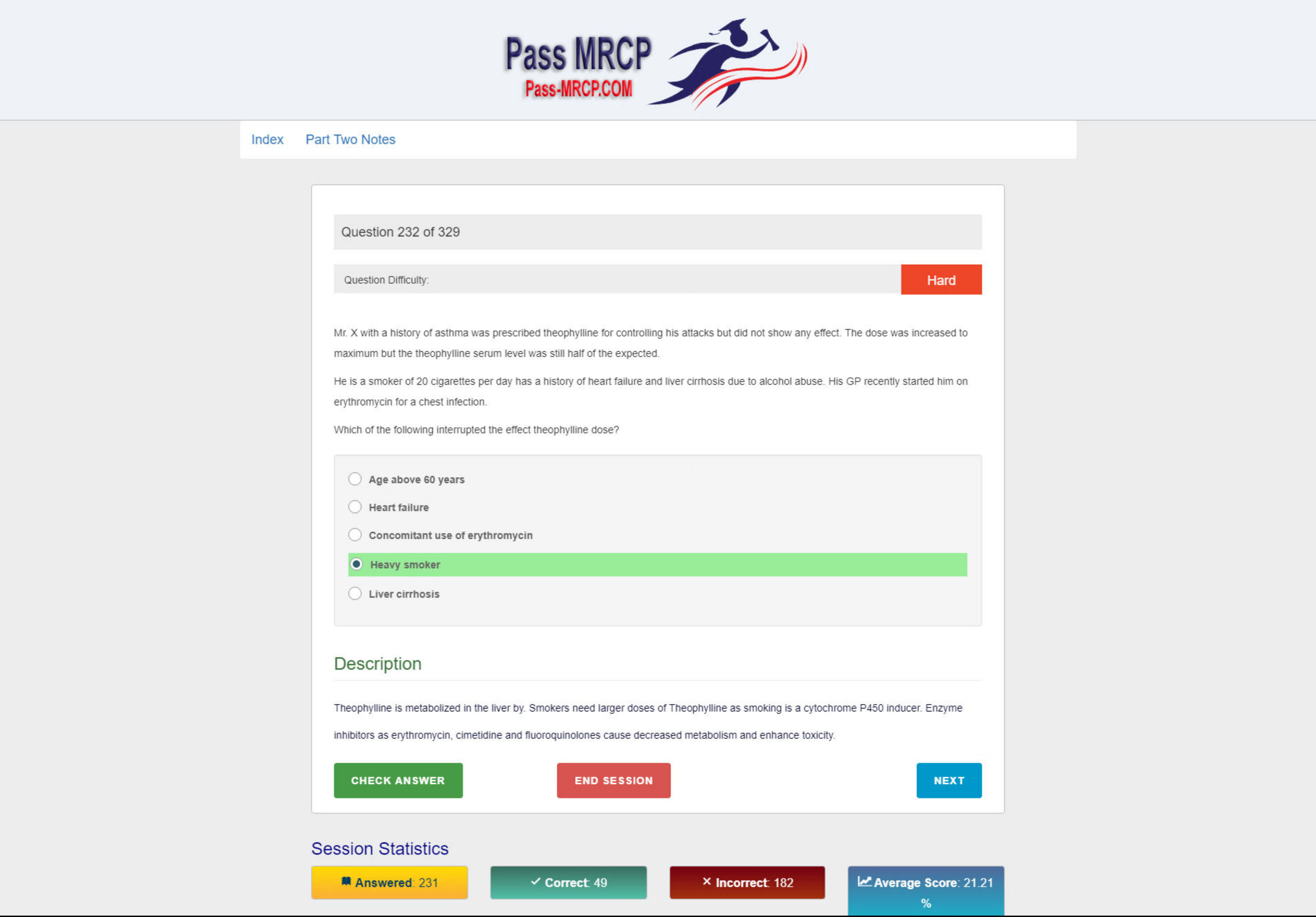
- ● Tissue cellulitis
- ○ Dry gangrene
- ○ Wet gangrene
- ○ Necrotizing fasciitis
- ○ Gas gangrene

## Description

Gangrene is a tissue death caused by a lack of blood supply and serious bacterial infection. Dry gangrene is a coagulative necrosis caused by ischemia due to peripheral arterial diseases. The lesion appears dry, shrunken and dark reddish-black.

## Session Statistics

Answered: 230
✓ Correct: 49
✕ Incorrect: 181
Average Score: 21.3 %



Question 232 of 329

Question Difficulty: Hard

Mr. X with a history of asthma was prescribed theophylline for controlling his attacks but did not show any effect. The dose was increased to maximum but the theophylline serum level was still half of the expected.

He is a smoker of 20 cigarettes per day has a history of heart failure and liver cirrhosis due to alcohol abuse. His GP recently started him on erythromycin for a chest infection.

Which of the following interrupted the effect theophylline dose?

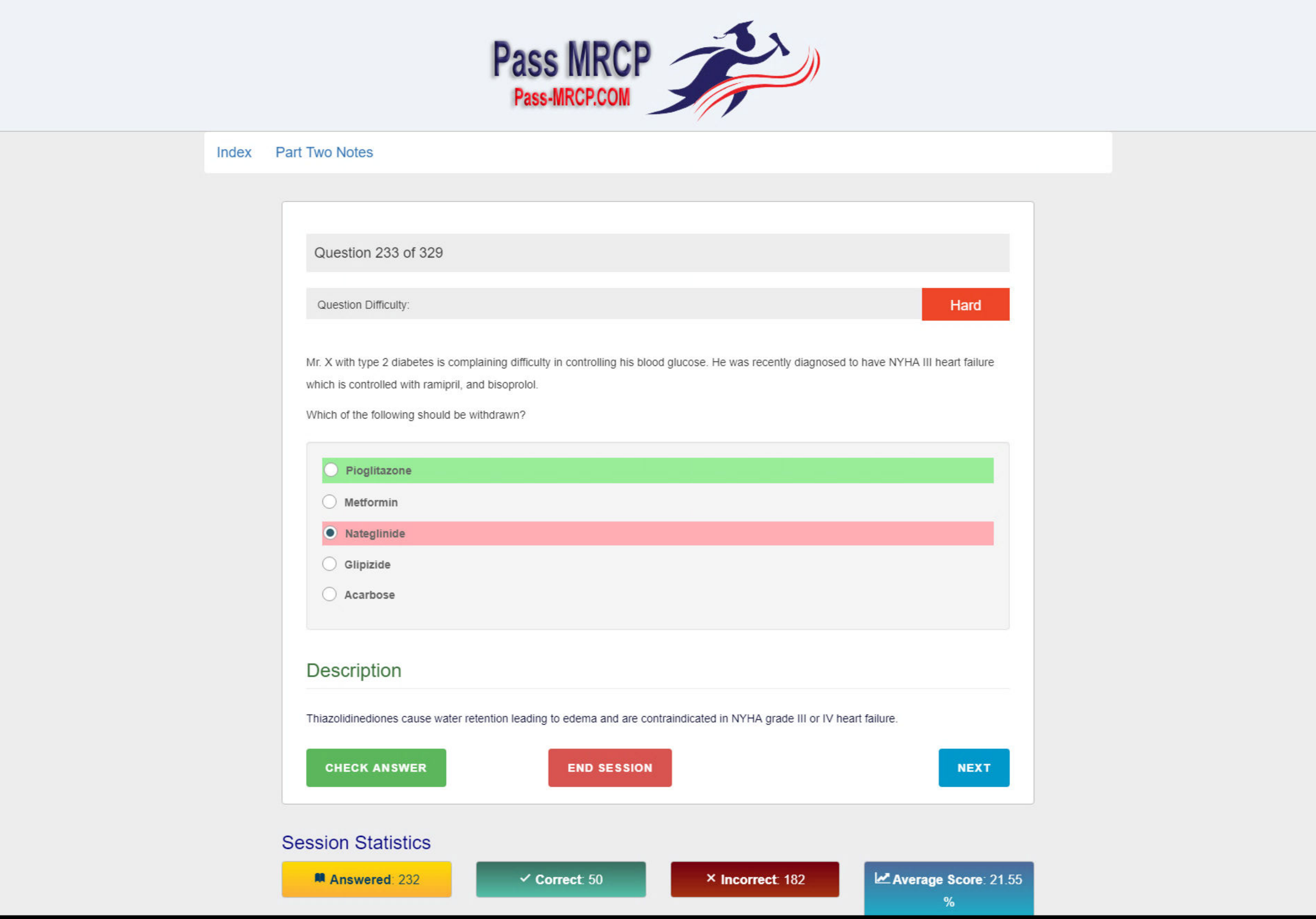
- ○ Age above 60 years
- ○ Heart failure
- ○ Concomitant use of erythromycin
- ● Heavy smoker
- ○ Liver cirrhosis

## Description

Theophylline is metabolized in the liver by. Smokers need larger doses of Theophylline as smoking is a cytochrome P450 inducer. Enzyme inhibitors as erythromycin, cimetidine and fluoroquinolones cause decreased metabolism and enhance toxicity.

Session Statistics

Answered: 231
✓ Correct: 49
× Incorrect: 182
Average Score: 21.21 %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Question 233 of 329

Question Difficulty: Hard

Mr. X with type 2 diabetes is complaining difficulty in controlling his blood glucose. He was recently diagnosed to have NYHA III heart failure which is controlled with ramipril, and bisoprolol.

Which of the following should be withdrawn?

- ○ Pioglitazone
- ○ Metformin
- ● Nateglinide
- ○ Glipizide
- ○ Acarbose

## Description

Thiazolidinediones cause water retention leading to edema and are contraindicated in NYHA grade III or IV heart failure.

CHECK ANSWER
END SESSION
NEXT

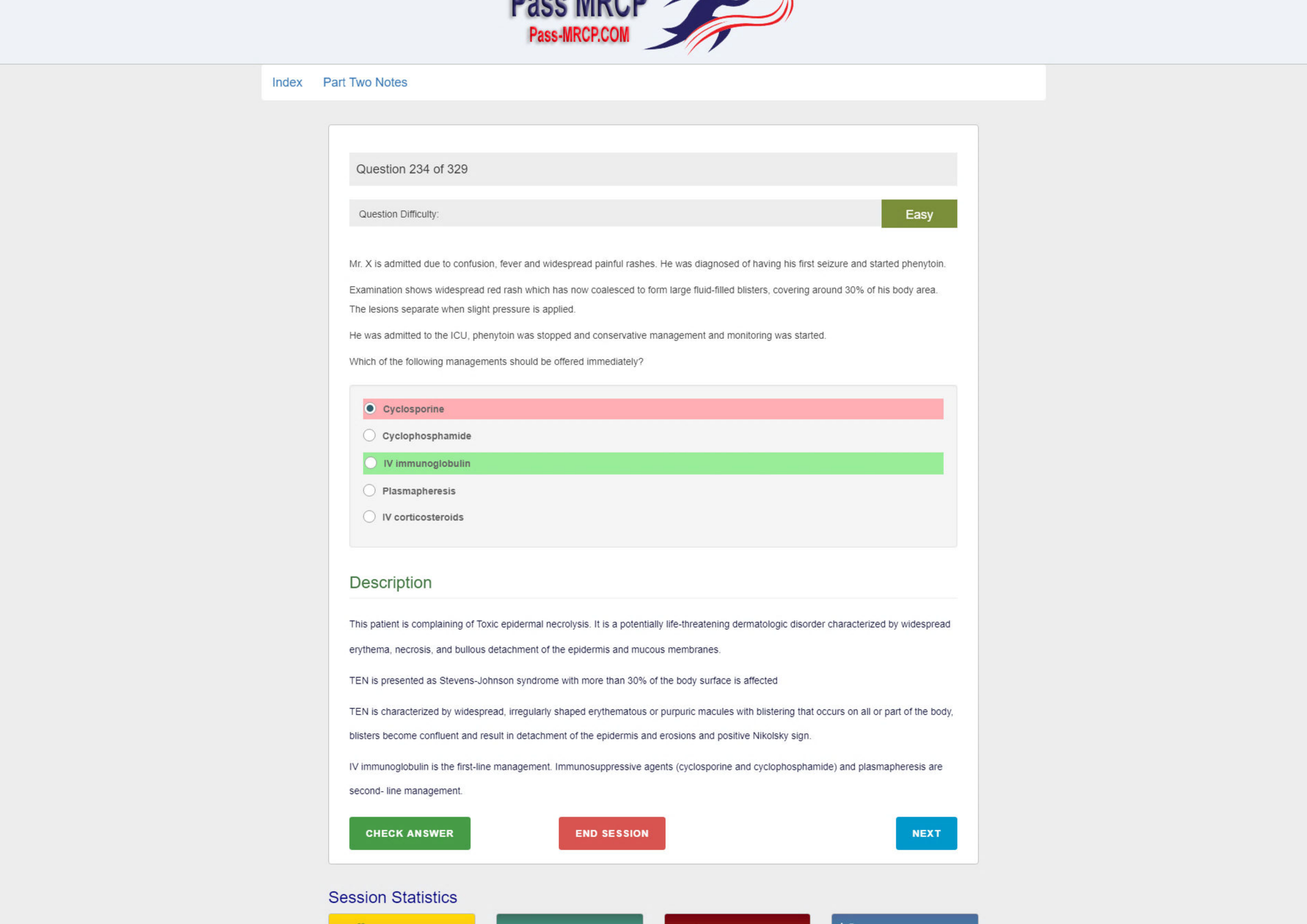
## Session Statistics

Answered: 232

✓ Correct: 50

✕ Incorrect: 182

Average Score: 21.55 %



Question 234 of 329

Question Difficulty: Easy

Mr. X is admitted due to confusion, fever and widespread painful rashes. He was diagnosed of having his first seizure and started phenytoin.

Examination shows widespread red rash which has now coalesced to form large fluid-filled blisters, covering around 30% of his body area. The lesions separate when slight pressure is applied.

He was admitted to the ICU, phenytoin was stopped and conservative management and monitoring was started.

Which of the following managements should be offered immediately?

- ● Cyclosporine
- ○ Cyclophosphamide
- ○ IV immunoglobulin
- ○ Plasmapheresis
- ○ IV corticosteroids

## Description

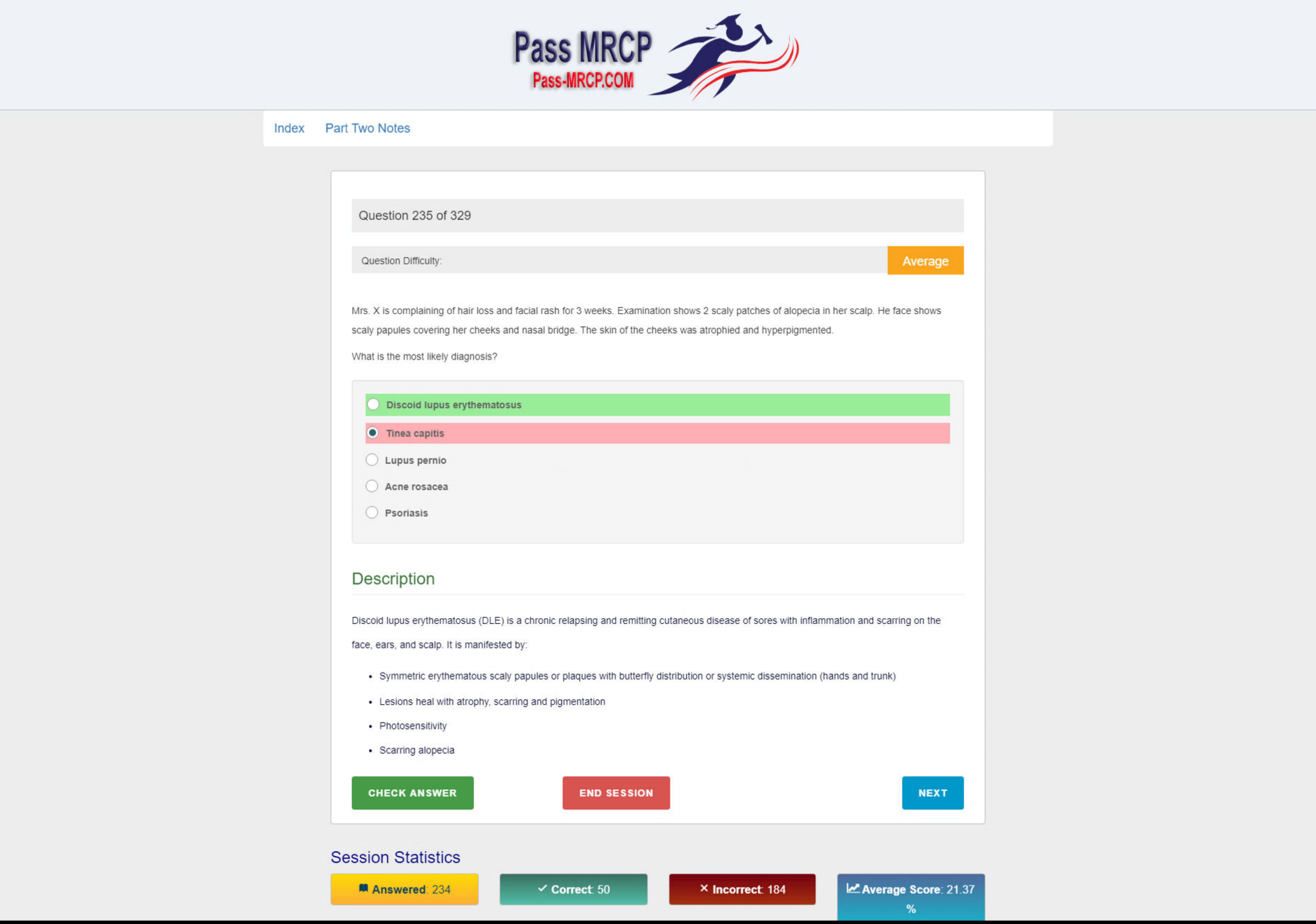
This patient is complaining of Toxic epidermal necrolysis. It is a potentially life-threatening dermatologic disorder characterized by widespread erythema, necrosis, and bullous detachment of the epidermis and mucous membranes.

TEN is presented as Stevens-Johnson syndrome with more than 30% of the body surface is affected

TEN is characterized by widespread, irregularly shaped erythematous or purpuric macules with blistering that occurs on all or part of the body, blisters become confluent and result in detachment of the epidermis and erosions and positive Nikolsky sign.

IV immunoglobulin is the first-line management. Immunosuppressive agents (cyclosporine and cyclophosphamide) and plasmapheresis are second- line management.

Session Statistics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Question 235 of 329

Question Difficulty: Average

Mrs. X is complaining of hair loss and facial rash for 3 weeks. Examination shows 2 scaly patches of alopecia in her scalp. He face shows scaly papules covering her cheeks and nasal bridge. The skin of the cheeks was atrophied and hyperpigmented.

What is the most likely diagnosis?

○ **Discoid lupus erythematosus**
● **Tinea capitis**
○ **Lupus pernio**
○ **Acne rosacea**
○ **Psoriasis**

## Description

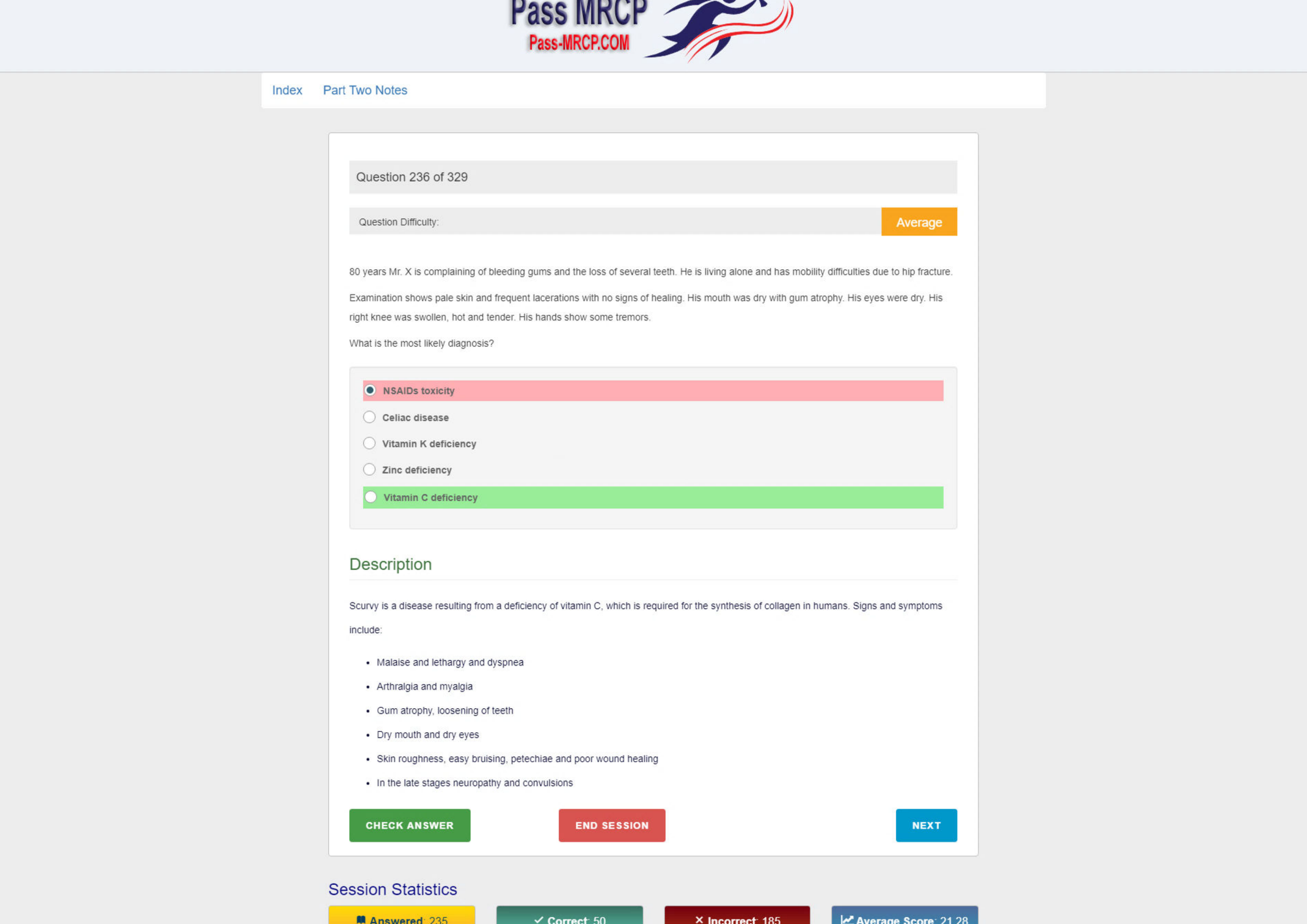
Discoid lupus erythematosus (DLE) is a chronic relapsing and remitting cutaneous disease of sores with inflammation and scarring on the face, ears, and scalp. It is manifested by:

- Symmetric erythematous scaly papules or plaques with butterfly distribution or systemic dissemination (hands and trunk)
- Lesions heal with atrophy, scarring and pigmentation
- Photosensitivity
- Scarring alopecia

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 234
✓ Correct: 50
× Incorrect: 184
Average Score: 21.37 %



Question 236 of 329

Question Difficulty: Average

80 years Mr. X is complaining of bleeding gums and the loss of several teeth. He is living alone and has mobility difficulties due to hip fracture.

Examination shows pale skin and frequent lacerations with no signs of healing. His mouth was dry with gum atrophy. His eyes were dry. His right knee was swollen, hot and tender. His hands show some tremors.

What is the most likely diagnosis?

- ● **NSAIDs toxicity** 🟥
- ○ **Celiac disease**
- ○ **Vitamin K deficiency**
- ○ **Zinc deficiency**
- ○ **Vitamin C deficiency** 🟩

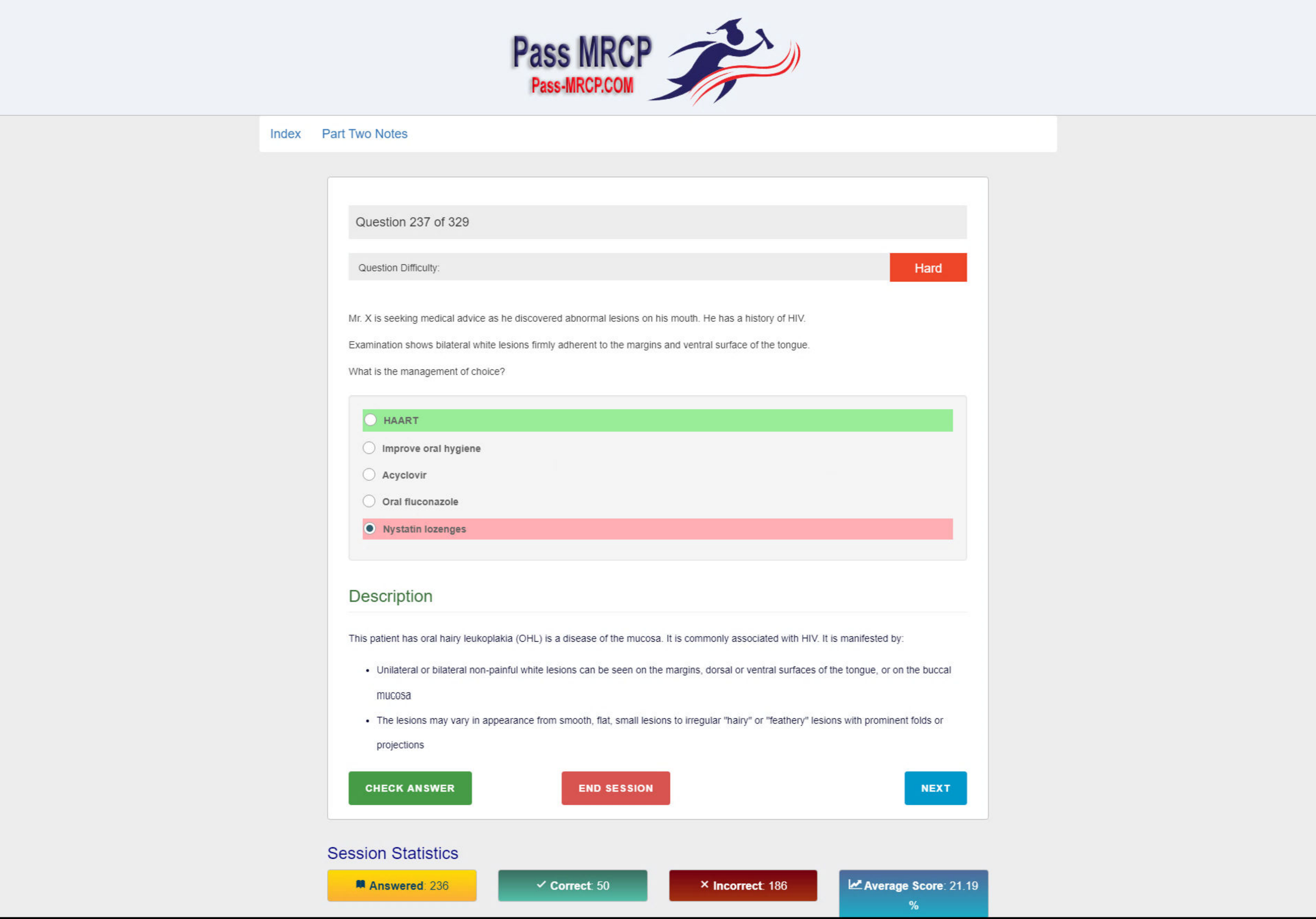
## Description

Scurvy is a disease resulting from a deficiency of vitamin C, which is required for the synthesis of collagen in humans. Signs and symptoms include:

- Malaise and lethargy and dyspnea
- Arthralgia and myalgia
- Gum atrophy, loosening of teeth
- Dry mouth and dry eyes
- Skin roughness, easy bruising, petechiae and poor wound healing
- In the late stages neuropathy and convulsions

Session Statistics

Answered: 235
✓ Correct: 50
✕ Incorrect: 185
Average Score: 21.28



Question 237 of 329

Question Difficulty: Hard

Mr. X is seeking medical advice as he discovered abnormal lesions on his mouth. He has a history of HIV.

Examination shows bilateral white lesions firmly adherent to the margins and ventral surface of the tongue.

What is the management of choice?

○ HAART

○ Improve oral hygiene

○ Acyclovir

○ Oral fluconazole

● Nystatin lozenges

## Description

This patient has oral hairy leukoplakia (OHL) is a disease of the mucosa. It is commonly associated with HIV. It is manifested by:

- Unilateral or bilateral non-painful white lesions can be seen on the margins, dorsal or ventral surfaces of the tongue, or on the buccal mucosa
- The lesions may vary in appearance from smooth, flat, small lesions to irregular "hairy" or "feathery" lesions with prominent folds or projections

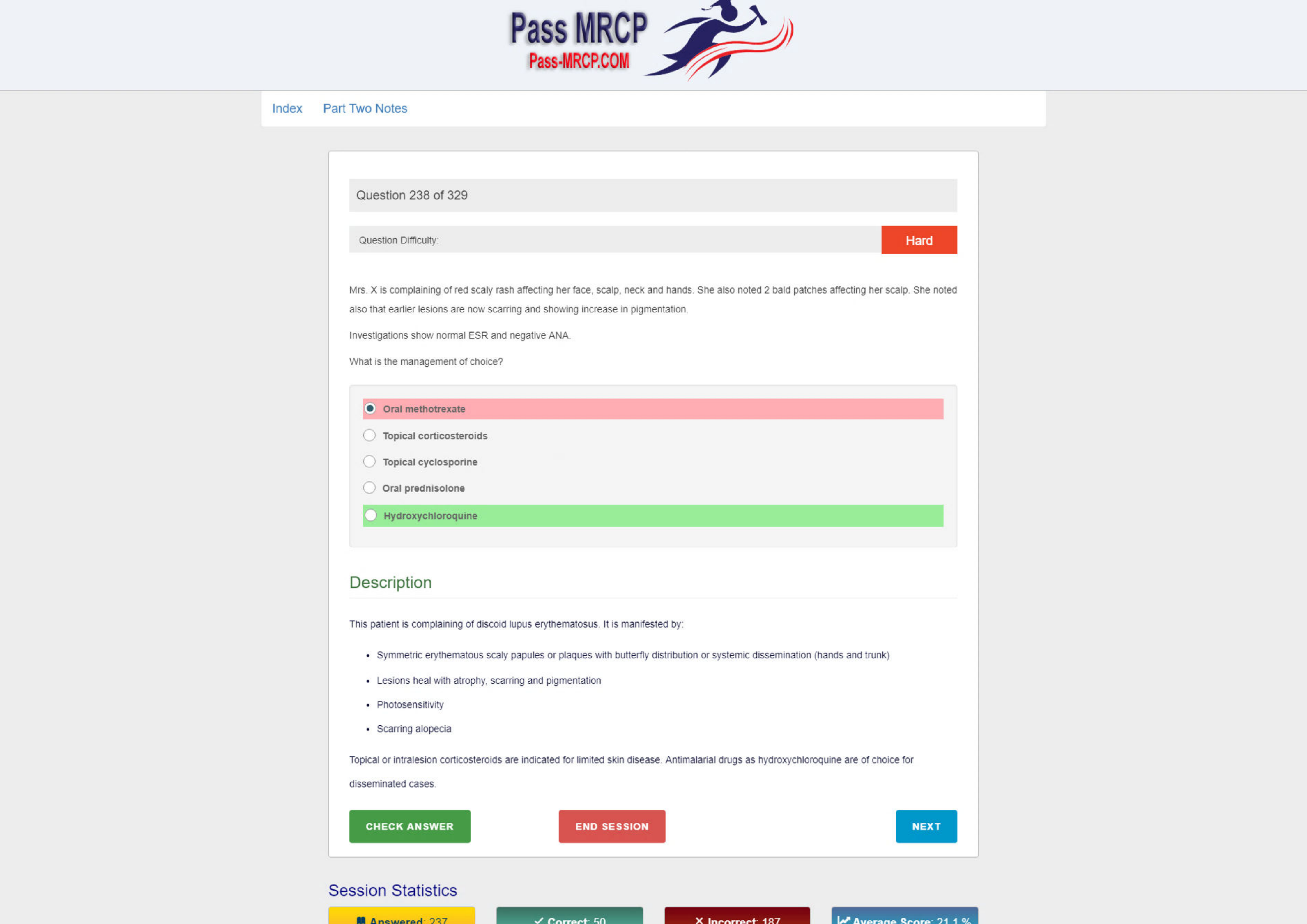
Session Statistics

Answered: 236

✓ Correct: 50

✕ Incorrect: 186

Average Score: 21.19 %



Question 238 of 329

Question Difficulty: Hard

Mrs. X is complaining of red scaly rash affecting her face, scalp, neck and hands. She also noted 2 bald patches affecting her scalp. She noted also that earlier lesions are now scarring and showing increase in pigmentation.

Investigations show normal ESR and negative ANA.

What is the management of choice?

● **Oral methotrexate**
○ **Topical corticosteroids**
○ **Topical cyclosporine**
○ **Oral prednisolone**
○ **Hydroxychloroquine**

## Description

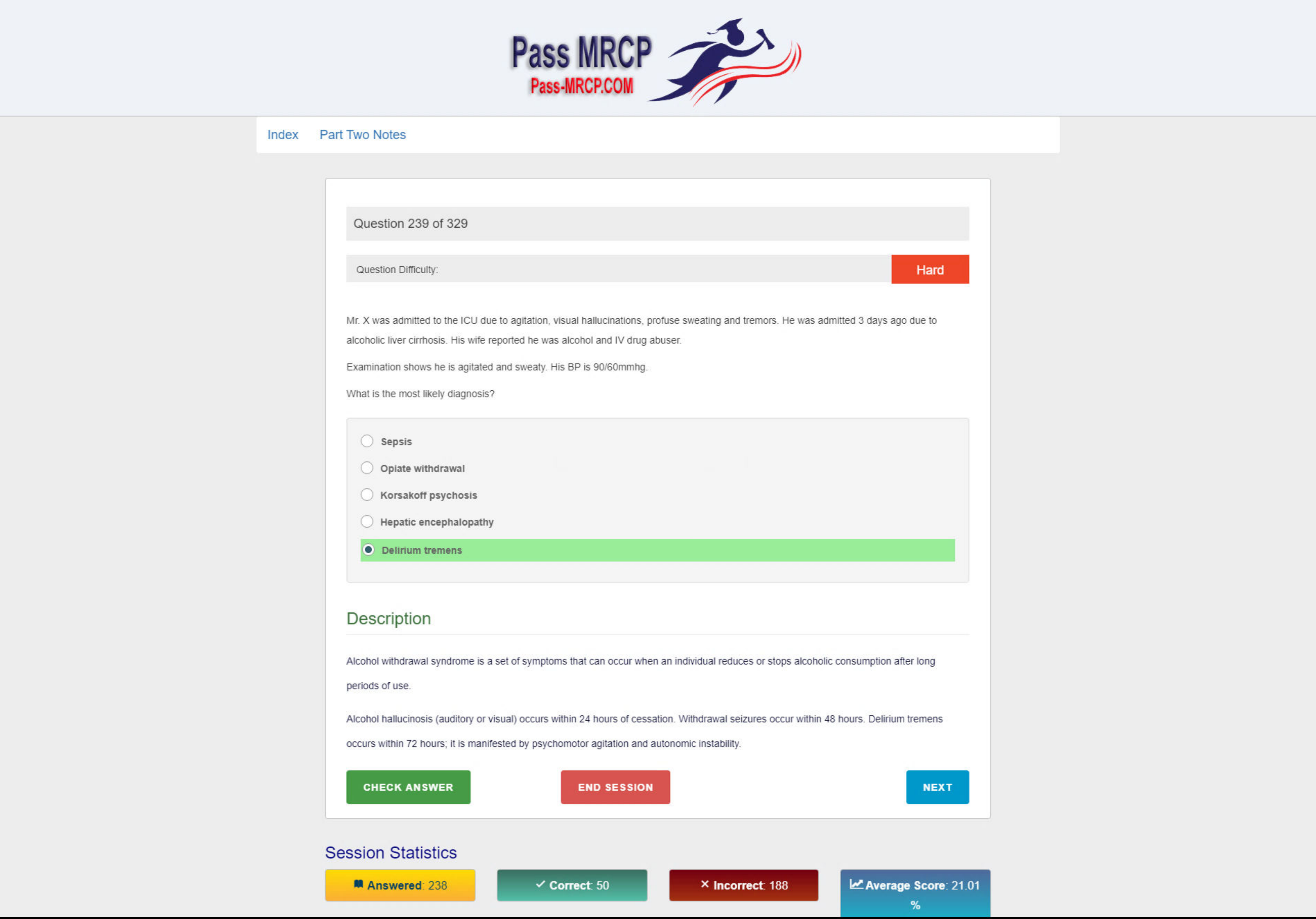
This patient is complaining of discoid lupus erythematosus. It is manifested by:

- Symmetric erythematous scaly papules or plaques with butterfly distribution or systemic dissemination (hands and trunk)
- Lesions heal with atrophy, scarring and pigmentation
- Photosensitivity
- Scarring alopecia

Topical or intralesion corticosteroids are indicated for limited skin disease. Antimalarial drugs as hydroxychloroquine are of choice for disseminated cases.

Session Statistics

Answered: 237
Correct: 50
Incorrect: 187
Average Score: 21.1 %



Question 239 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ICU due to agitation, visual hallucinations, profuse sweating and tremors. He was admitted 3 days ago due to alcoholic liver cirrhosis. His wife reported he was alcohol and IV drug abuser.

Examination shows he is agitated and sweaty. His BP is 90/60mmhg.

What is the most likely diagnosis?

- ○ **Sepsis**
- ○ **Opiate withdrawal**
- ○ **Korsakoff psychosis**
- ○ **Hepatic encephalopathy**
- ● **Delirium tremens**

## Description

Alcohol withdrawal syndrome is a set of symptoms that can occur when an individual reduces or stops alcoholic consumption after long periods of use.

Alcohol hallucinosis (auditory or visual) occurs within 24 hours of cessation. Withdrawal seizures occur within 48 hours. Delirium tremens occurs within 72 hours; it is manifested by psychomotor agitation and autonomic instability.

### Session Statistics

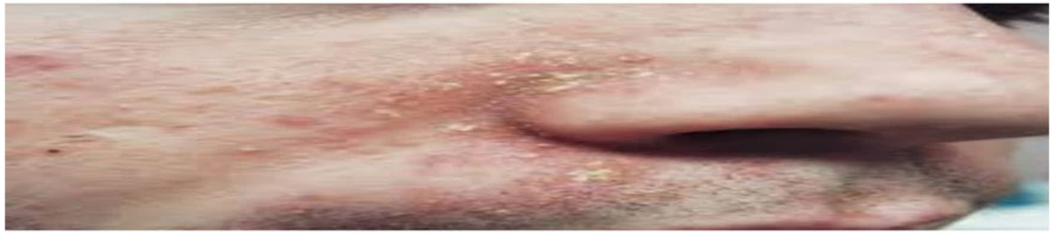
**Answered**: 238
✓ **Correct**: 50
✕ **Incorrect**: 188
**Average Score**: 21.01 %

Question 240 of 329

Question Difficulty: **Hard**

Mr. X is complaining of itchy red rash on his nose, forehead and spreading to behind his ears. He reported a long history of hair and eye brows dandruffs since his childhood.

His skin shows thick adherent crusts with patchy scaling as in the image. There are some areas of hypopigmentation and papules oozing oily fluid.



What is the most likely diagnosis?

- ○ **Rosacea**
- ○ **Leprosy**
- ● **Seborrheic dermatitis**
- ○ **Acne vulgaris**
- ○ **Flexural psoriasis**

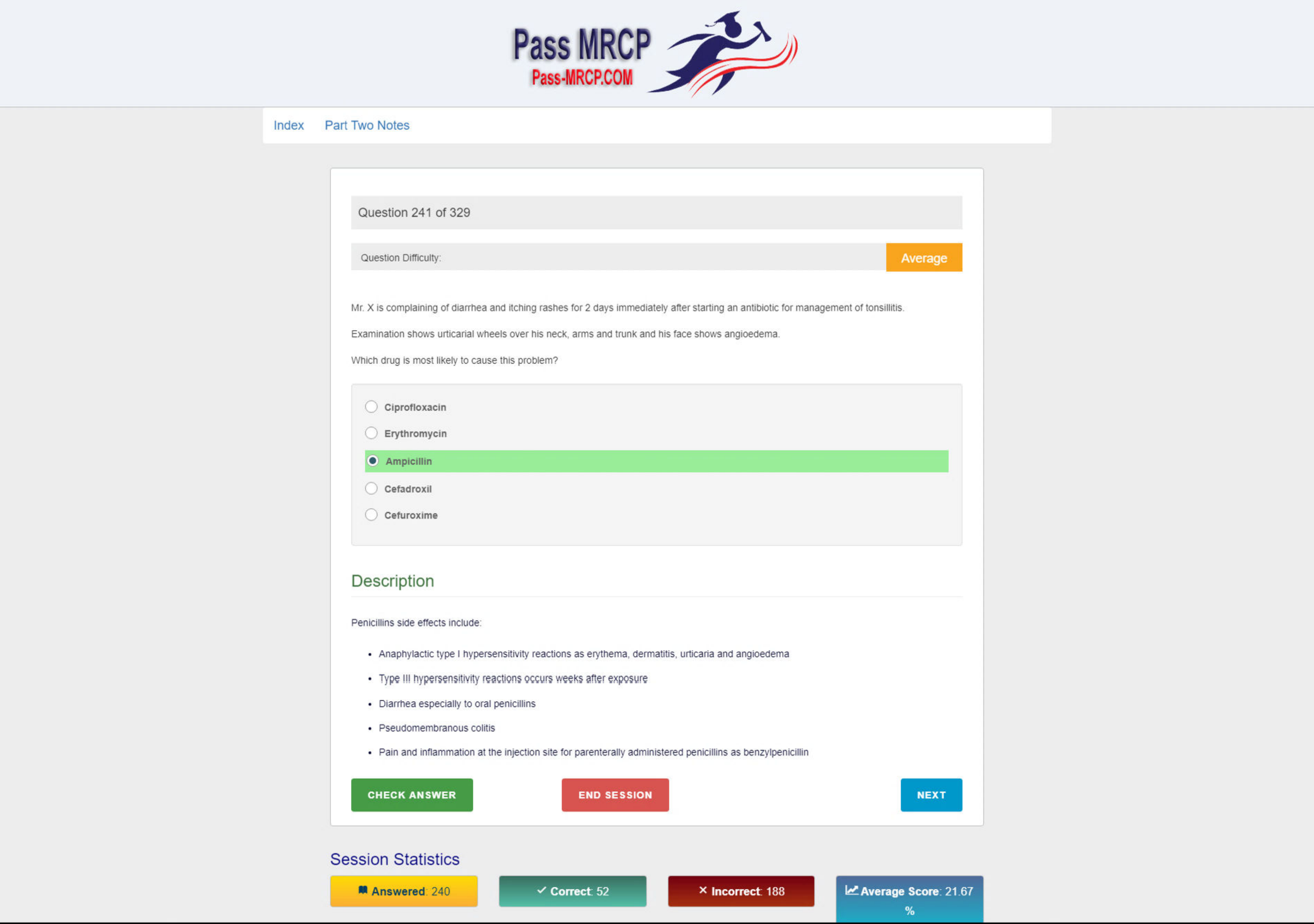
## Description

Seborrheic dermatitis is a papulo-squamous disorder patterned on the sebum-rich areas of the scalp, face, and trunk. It is manifested by:

- Scalp shows patchy scaling to widespread, thick, adherent crusts; lesions may spread from the scalp onto the forehead, the posterior part of the neck, and the post-auricular skin
- Seborrheic skin lesions manifesting as scaling over red, inflamed skin, hypopigmentation, oozing and crusting

CHECK ANSWER END SESSION NEXT

## Session Statistics



Question 241 of 329

Question Difficulty: **Average**

Mr. X is complaining of diarrhea and itching rashes for 2 days immediately after starting an antibiotic for management of tonsillitis.

Examination shows urticarial wheels over his neck, arms and trunk and his face shows angioedema.

Which drug is most likely to cause this problem?

○ **Ciprofloxacin**
○ **Erythromycin**
● **Ampicillin**
○ **Cefadroxil**
○ **Cefuroxime**

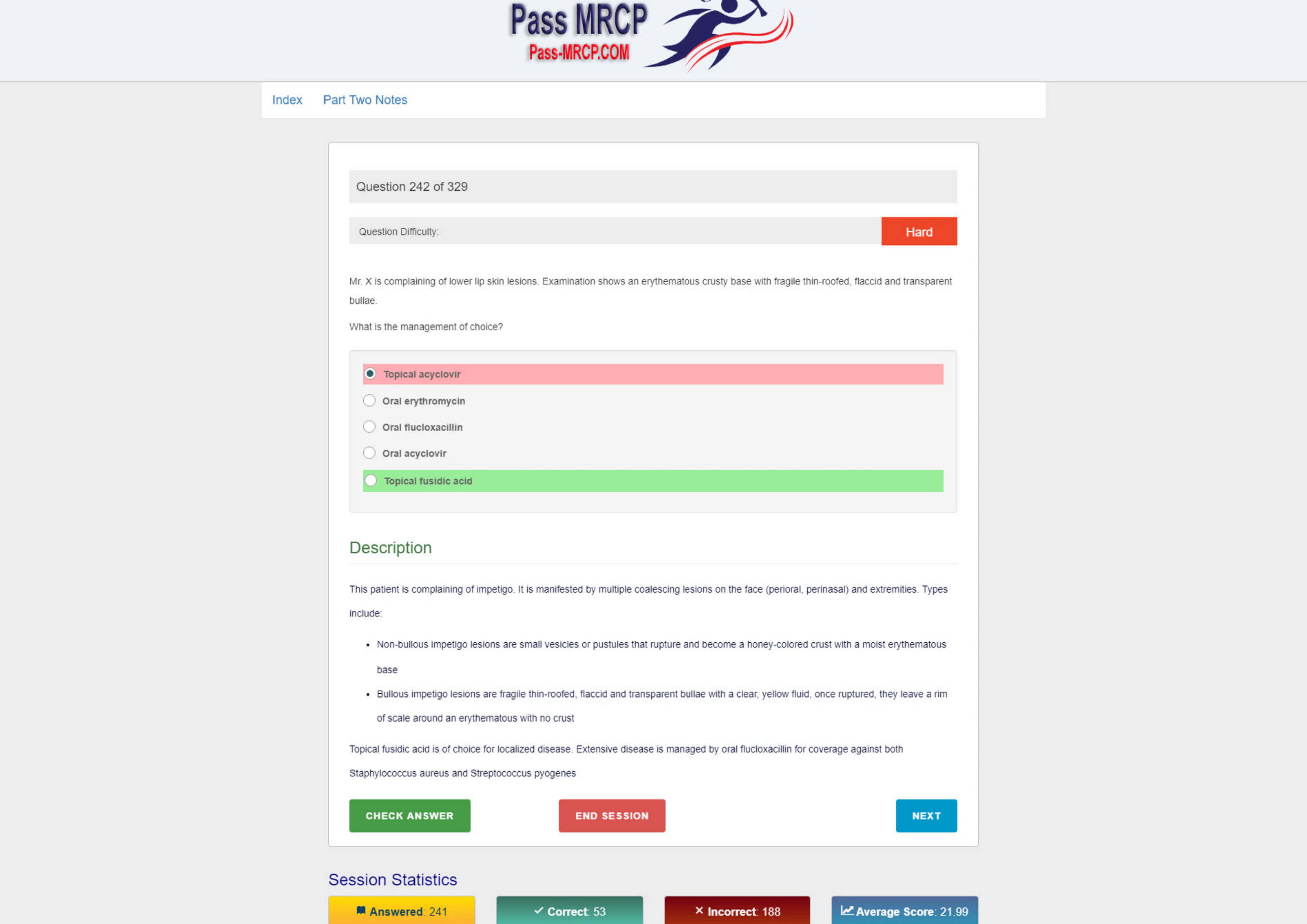
## Description

Penicillins side effects include:

- Anaphylactic type I hypersensitivity reactions as erythema, dermatitis, urticaria and angioedema
- Type III hypersensitivity reactions occurs weeks after exposure
- Diarrhea especially to oral penicillins
- Pseudomembranous colitis
- Pain and inflammation at the injection site for parenterally administered penicillins as benzylpenicillin

## Session Statistics

**Answered**: 240
✓ **Correct**: 52
× **Incorrect**: 188
**Average Score**: 21.67 %



Question 242 of 329

Question Difficulty: **Hard**

Mr. X is complaining of lower lip skin lesions. Examination shows an erythematous crusty base with fragile thin-roofed, flaccid and transparent bullae.

What is the management of choice?

● **Topical acyclovir**
○ **Oral erythromycin**
○ **Oral flucloxacillin**
○ **Oral acyclovir**
○ **Topical fusidic acid**

## Description

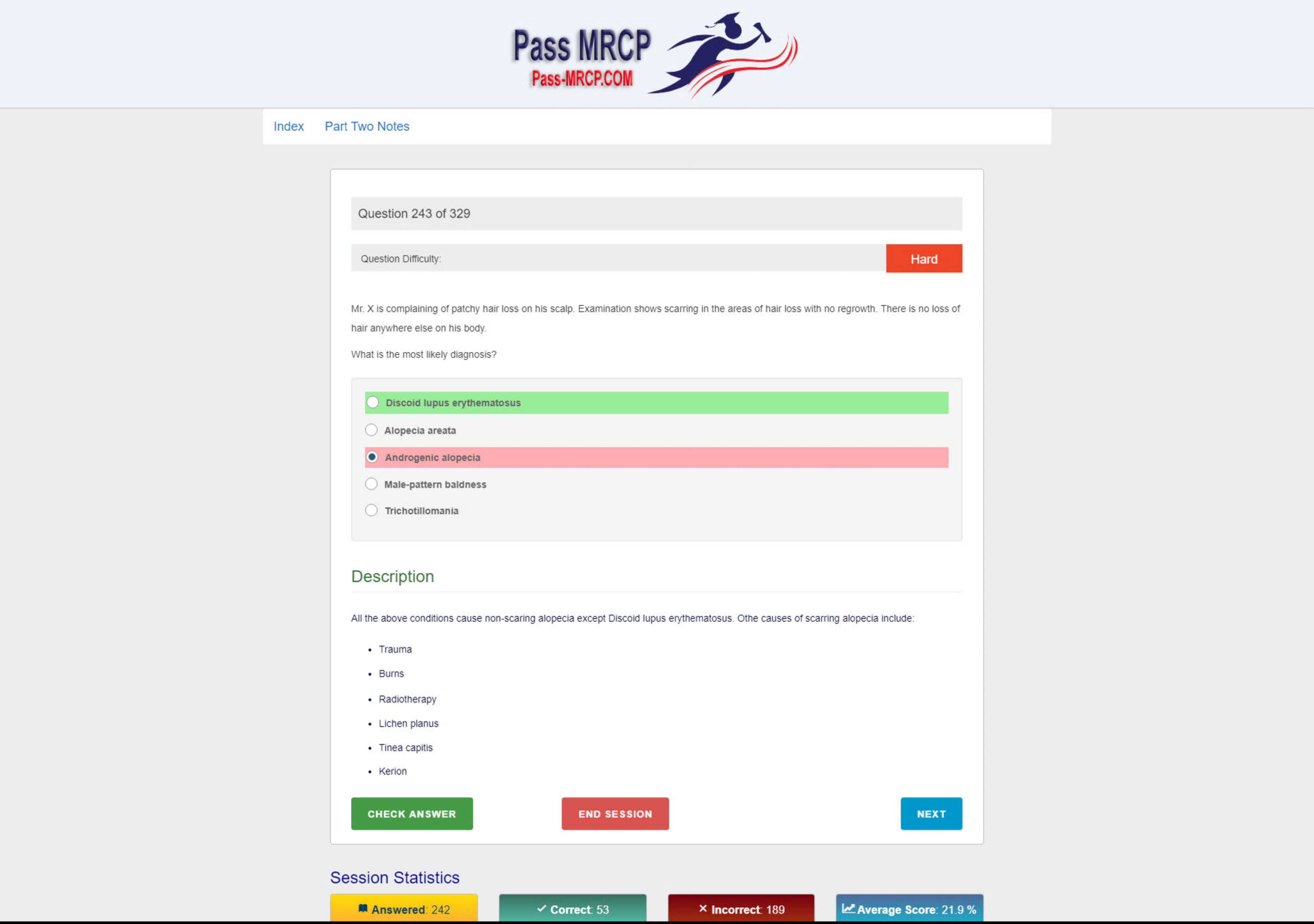
This patient is complaining of impetigo. It is manifested by multiple coalescing lesions on the face (perioral, perinasal) and extremities. Types include:

- Non-bullous impetigo lesions are small vesicles or pustules that rupture and become a honey-colored crust with a moist erythematous base
- Bullous impetigo lesions are fragile thin-roofed, flaccid and transparent bullae with a clear, yellow fluid, once ruptured, they leave a rim of scale around an erythematous with no crust

Topical fusidic acid is of choice for localized disease. Extensive disease is managed by oral flucloxacillin for coverage against both Staphylococcus aureus and Streptococcus pyogenes

Session Statistics

**Answered**: 241
✓ **Correct**: 53
✕ **Incorrect**: 188
**Average Score**: 21.99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Question 243 of 329

Question Difficulty: **Hard**

Mr. X is complaining of patchy hair loss on his scalp. Examination shows scarring in the areas of hair loss with no regrowth. There is no loss of hair anywhere else on his body.

What is the most likely diagnosis?

○ **Discoid lupus erythematosus**
○ **Alopecia areata**
● **Androgenic alopecia**
○ **Male-pattern baldness**
○ **Trichotillomania**

## Description

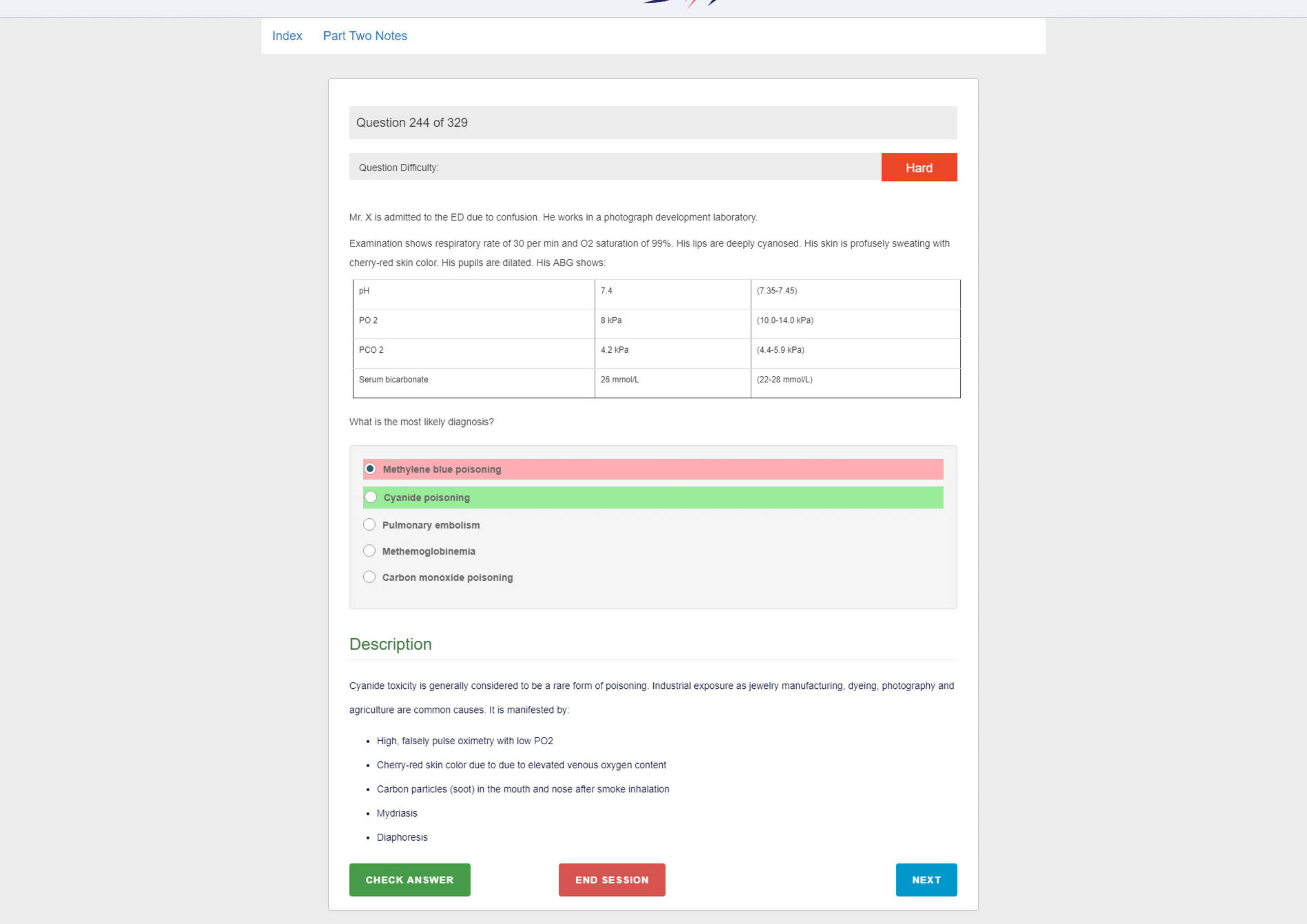
All the above conditions cause non-scaring alopecia except Discoid lupus erythematosus. Othe causes of scarring alopecia include:

- Trauma
- Burns
- Radiotherapy
- Lichen planus
- Tinea capitis
- Kerion

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 242
✓ Correct: 53
✕ Incorrect: 189
Average Score: 21.9 %



Question 244 of 329

Question Difficulty:

Mr. X is admitted to the ED due to confusion. He works in a photograph development laboratory.

Examination shows respiratory rate of 30 per min and O2 saturation of 99%. His lips are deeply cyanosed. His skin is profusely sweating with cherry-red skin color. His pupils are dilated. His ABG shows:

| | | |
|---|---|---|
| pH | 7.4 | (7.35-7.45) |
| PO 2 | 8 kPa | (10.0-14.0 kPa) |
| PCO 2 | 4.2 kPa | (4.4-5.9 kPa) |
| Serum bicarbonate | 26 mmol/L | (22-28 mmol/L) |

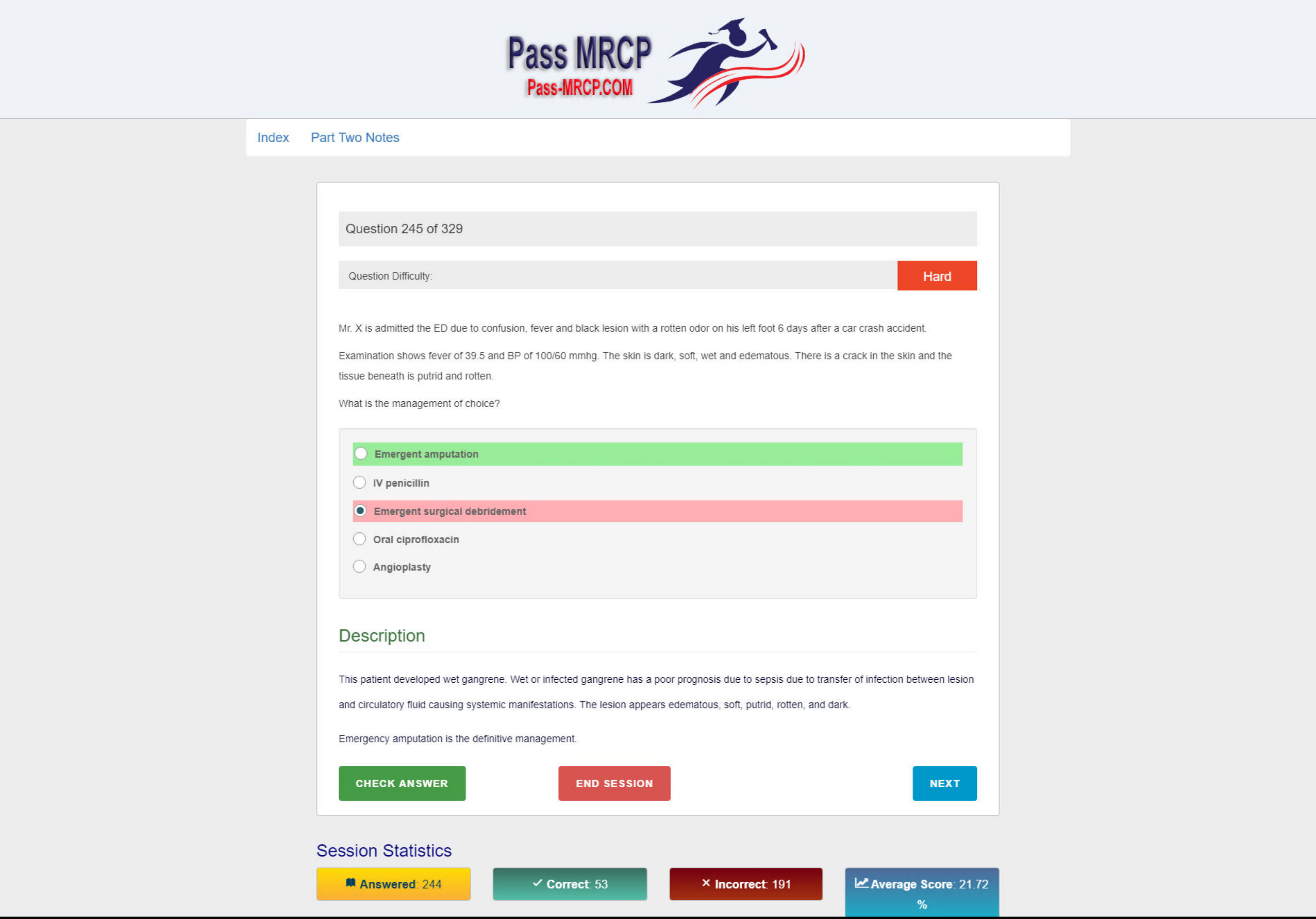
What is the most likely diagnosis?

- ● **Methylene blue poisoning**
- ○ **Cyanide poisoning**
- ○ **Pulmonary embolism**
- ○ **Methemoglobinemia**
- ○ **Carbon monoxide poisoning**

## Description

Cyanide toxicity is generally considered to be a rare form of poisoning. Industrial exposure as jewelry manufacturing, dyeing, photography and agriculture are common causes. It is manifested by:

- High, falsely pulse oximetry with low PO2
- Cherry-red skin color due to due to elevated venous oxygen content
- Carbon particles (soot) in the mouth and nose after smoke inhalation
- Mydriasis
- Diaphoresis



Question 245 of 329

Question Difficulty: Hard

Mr. X is admitted the ED due to confusion, fever and black lesion with a rotten odor on his left foot 6 days after a car crash accident.

Examination shows fever of 39.5 and BP of 100/60 mmhg. The skin is dark, soft, wet and edematous. There is a crack in the skin and the tissue beneath is putrid and rotten.

What is the management of choice?

- ○ **Emergent amputation**
- ○ **IV penicillin**
- ● **Emergent surgical debridement**
- ○ **Oral ciprofloxacin**
- ○ **Angioplasty**

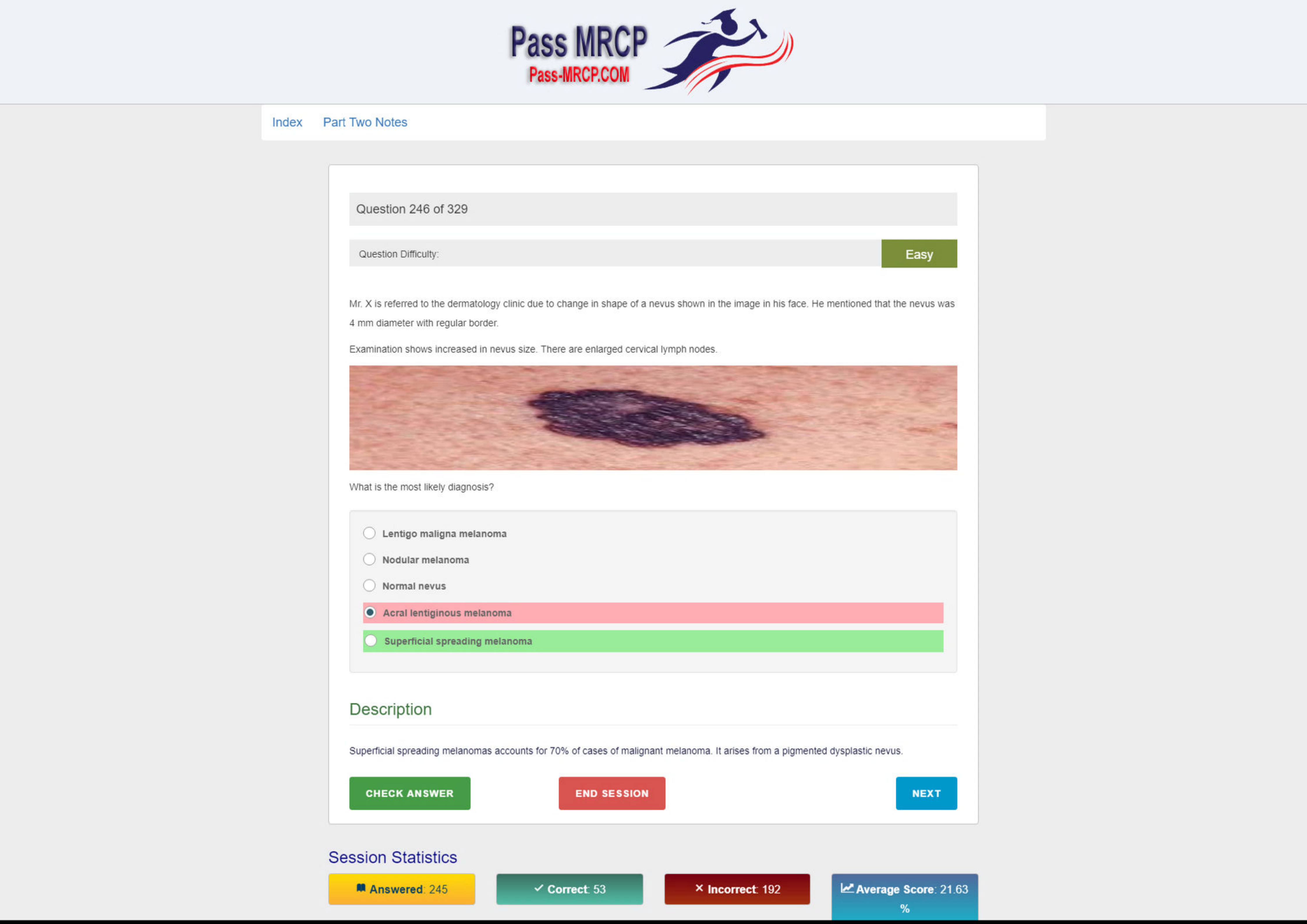
## Description

This patient developed wet gangrene. Wet or infected gangrene has a poor prognosis due to sepsis due to transfer of infection between lesion and circulatory fluid causing systemic manifestations. The lesion appears edematous, soft, putrid, rotten, and dark.

Emergency amputation is the definitive management.

Session Statistics

**Answered**: 244
✓ **Correct**: 53
× **Incorrect**: 191
**Average Score**: 21.72 %



Question 246 of 329

Question Difficulty: Easy

Mr. X is referred to the dermatology clinic due to change in shape of a nevus shown in the image in his face. He mentioned that the nevus was 4 mm diameter with regular border.

Examination shows increased in nevus size. There are enlarged cervical lymph nodes.

What is the most likely diagnosis?

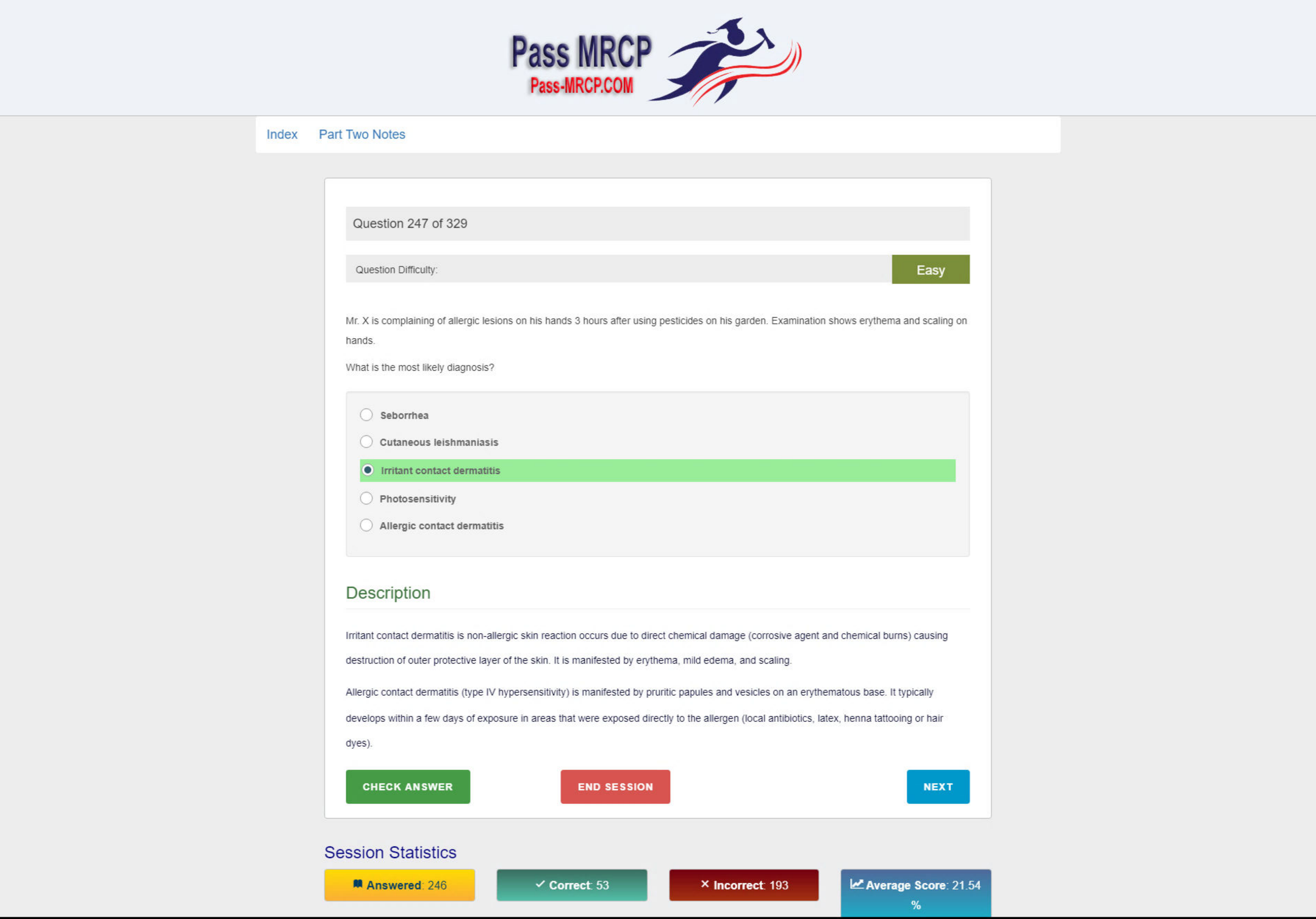
- ○ Lentigo maligna melanoma
- ○ Nodular melanoma
- ○ Normal nevus
- ● Acral lentiginous melanoma
- ○ Superficial spreading melanoma

Description

Superficial spreading melanomas accounts for 70% of cases of malignant melanoma. It arises from a pigmented dysplastic nevus.

Session Statistics

Answered: 245
✓ Correct: 53
✕ Incorrect: 192
Average Score: 21.63 %



Question 247 of 329

Question Difficulty: **Easy**

Mr. X is complaining of allergic lesions on his hands 3 hours after using pesticides on his garden. Examination shows erythema and scaling on hands.

What is the most likely diagnosis?

- ○ **Seborrhea**
- ○ **Cutaneous leishmaniasis**
- ● **Irritant contact dermatitis**
- ○ **Photosensitivity**
- ○ **Allergic contact dermatitis**

## Description

Irritant contact dermatitis is non-allergic skin reaction occurs due to direct chemical damage (corrosive agent and chemical burns) causing destruction of outer protective layer of the skin. It is manifested by erythema, mild edema, and scaling.

Allergic contact dermatitis (type IV hypersensitivity) is manifested by pruritic papules and vesicles on an erythematous base. It typically develops within a few days of exposure in areas that were exposed directly to the allergen (local antibiotics, latex, henna tattooing or hair dyes).

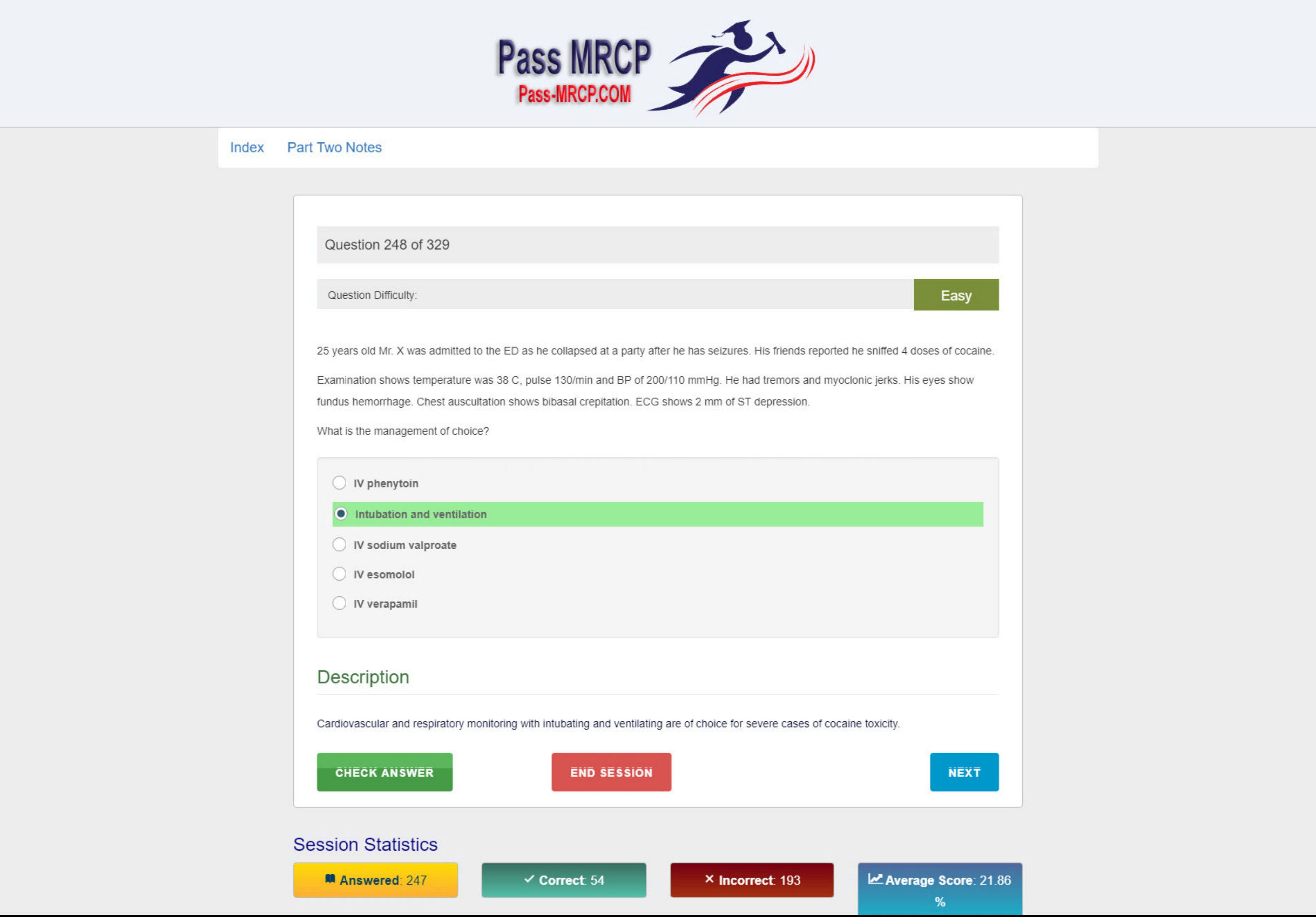
## Session Statistics

**Answered**: 246

✓ **Correct**: 53

✕ **Incorrect**: 193

**Average Score**: 21.54 %



Question 248 of 329

Question Difficulty: Easy

25 years old Mr. X was admitted to the ED as he collapsed at a party after he has seizures. His friends reported he sniffed 4 doses of cocaine.

Examination shows temperature was 38 C, pulse 130/min and BP of 200/110 mmHg. He had tremors and myoclonic jerks. His eyes show fundus hemorrhage. Chest auscultation shows bibasal crepitation. ECG shows 2 mm of ST depression.

What is the management of choice?

- ○ **IV phenytoin**
- ● **Intubation and ventilation**
- ○ **IV sodium valproate**
- ○ **IV esomolol**
- ○ **IV verapamil**

## Description

Cardiovascular and respiratory monitoring with intubating and ventilating are of choice for severe cases of cocaine toxicity.

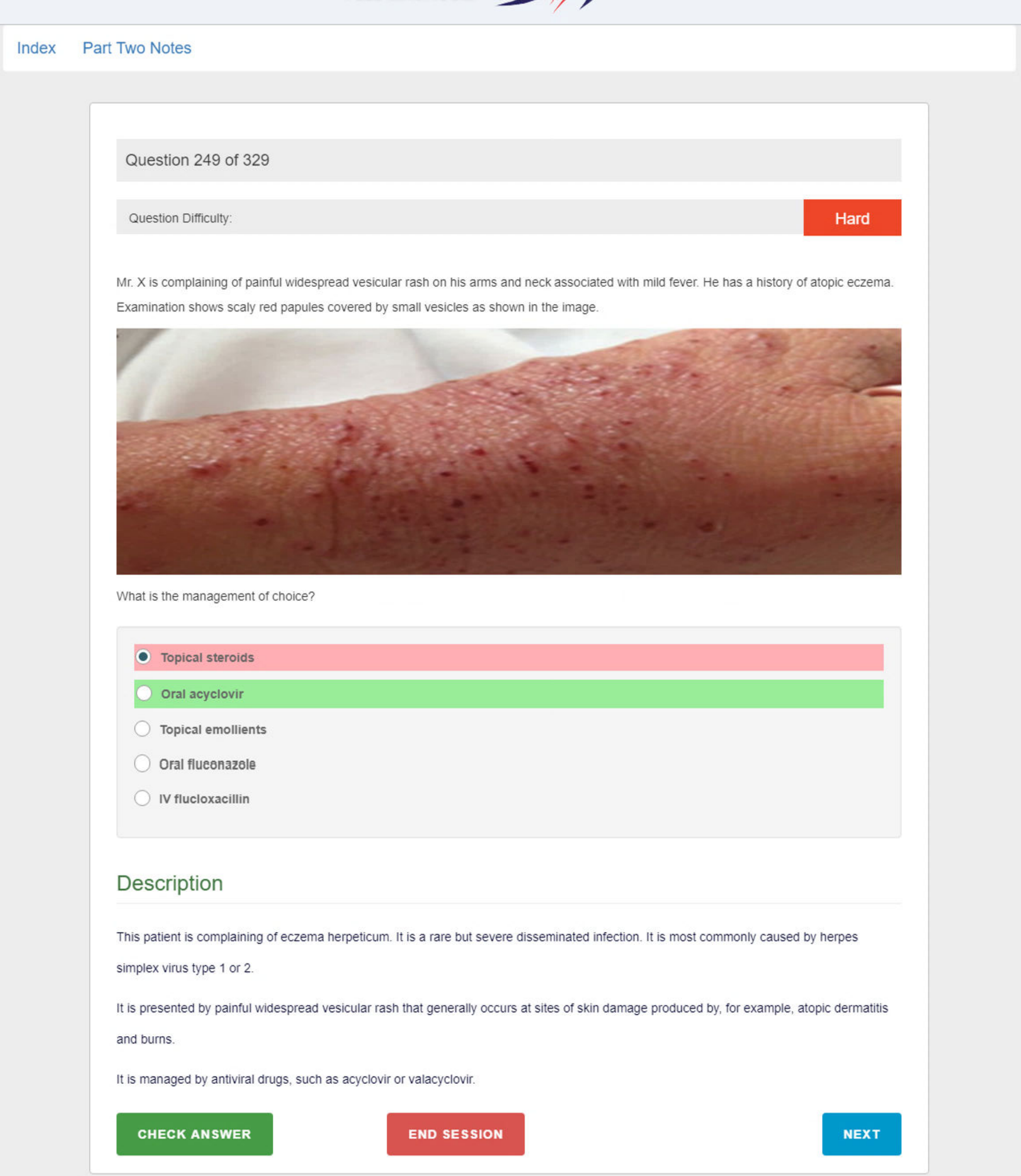
Session Statistics

**Answered**: 247

**Correct**: 54

**Incorrect**: 193

**Average Score**: 21.86 %



Question 249 of 329

Question Difficulty: Hard

Mr. X is complaining of painful widespread vesicular rash on his arms and neck associated with mild fever. He has a history of atopic eczema. Examination shows scaly red papules covered by small vesicles as shown in the image.

What is the management of choice?

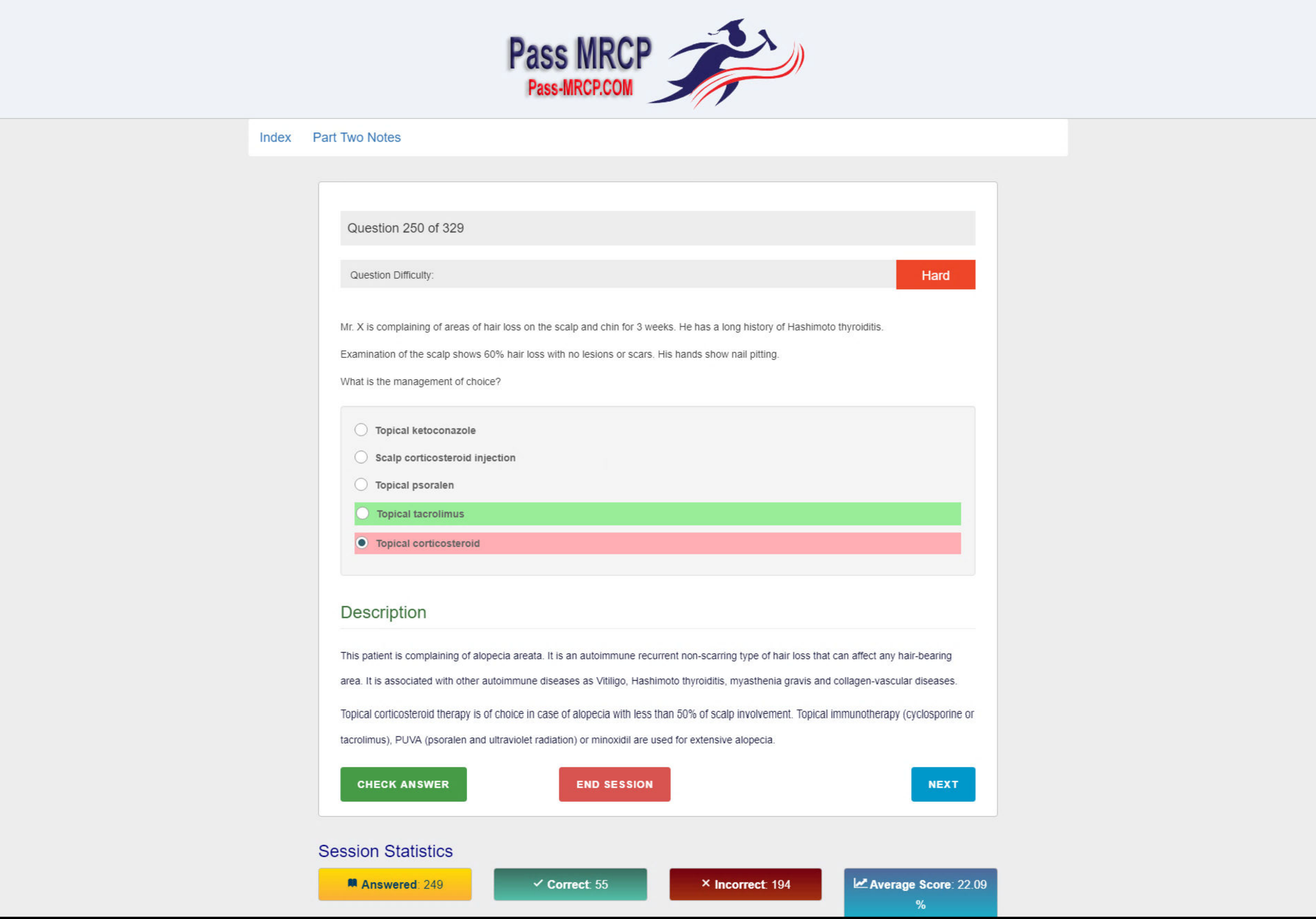
- ● Topical steroids
- ○ Oral acyclovir
- ○ Topical emollients
- ○ Oral fluconazole
- ○ IV flucloxacillin

## Description

This patient is complaining of eczema herpeticum. It is a rare but severe disseminated infection. It is most commonly caused by herpes simplex virus type 1 or 2.

It is presented by painful widespread vesicular rash that generally occurs at sites of skin damage produced by, for example, atopic dermatitis and burns.

It is managed by antiviral drugs, such as acyclovir or valacyclovir.



Question 250 of 329

Question Difficulty: Hard

Mr. X is complaining of areas of hair loss on the scalp and chin for 3 weeks. He has a long history of Hashimoto thyroiditis.

Examination of the scalp shows 60% hair loss with no lesions or scars. His hands show nail pitting.

What is the management of choice?

○ Topical ketoconazole
○ Scalp corticosteroid injection
○ Topical psoralen
○ Topical tacrolimus
● Topical corticosteroid

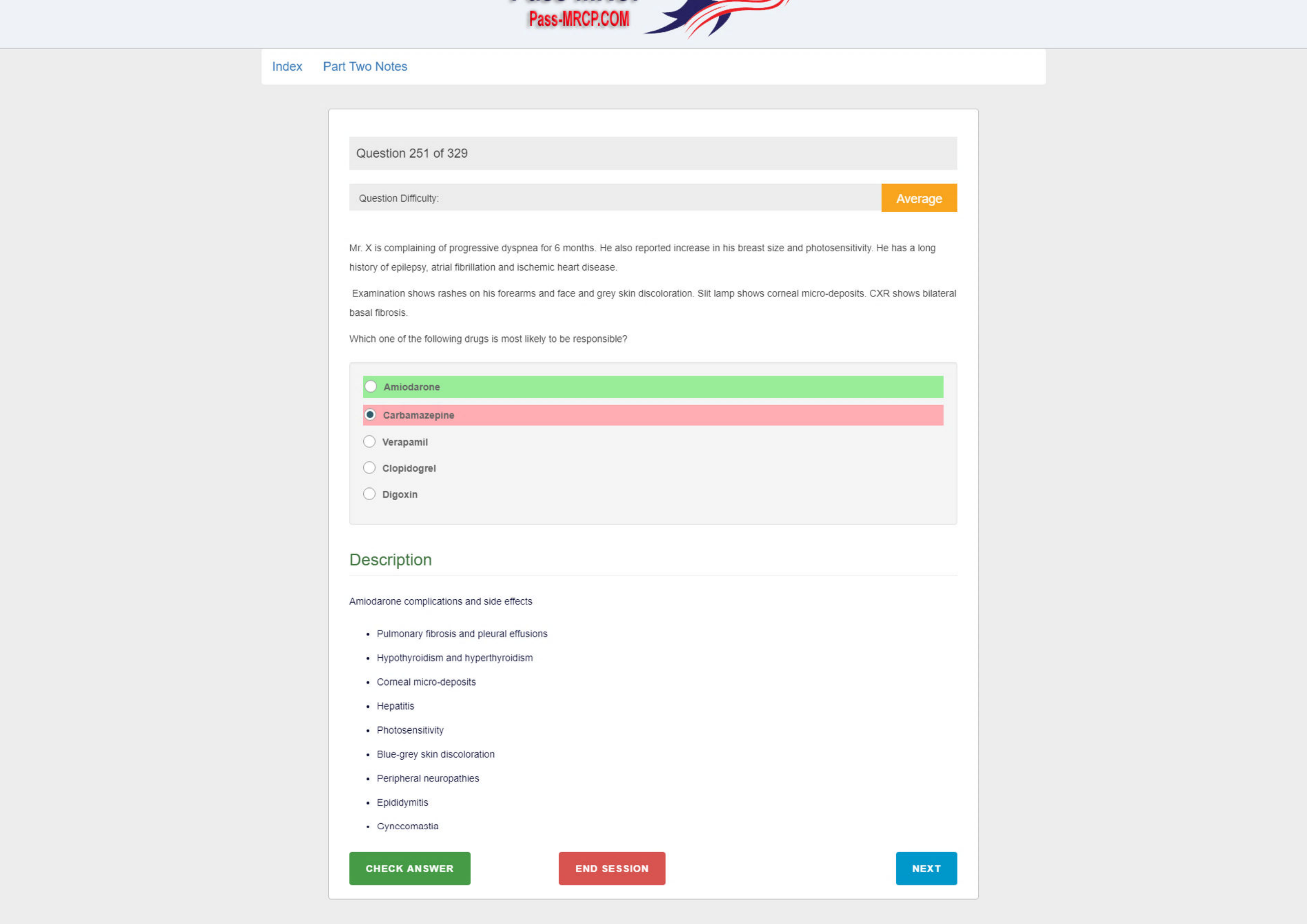
## Description

This patient is complaining of alopecia areata. It is an autoimmune recurrent non-scarring type of hair loss that can affect any hair-bearing area. It is associated with other autoimmune diseases as Vitiligo, Hashimoto thyroiditis, myasthenia gravis and collagen-vascular diseases.

Topical corticosteroid therapy is of choice in case of alopecia with less than 50% of scalp involvement. Topical immunotherapy (cyclosporine or tacrolimus), PUVA (psoralen and ultraviolet radiation) or minoxidil are used for extensive alopecia.

Session Statistics

Answered: 249
✓ Correct: 55
✕ Incorrect: 194
Average Score: 22.09 %



Question 251 of 329

Question Difficulty: Average

Mr. X is complaining of progressive dyspnea for 6 months. He also reported increase in his breast size and photosensitivity. He has a long history of epilepsy, atrial fibrillation and ischemic heart disease.

Examination shows rashes on his forearms and face and grey skin discoloration. Slit lamp shows corneal micro-deposits. CXR shows bilateral basal fibrosis.

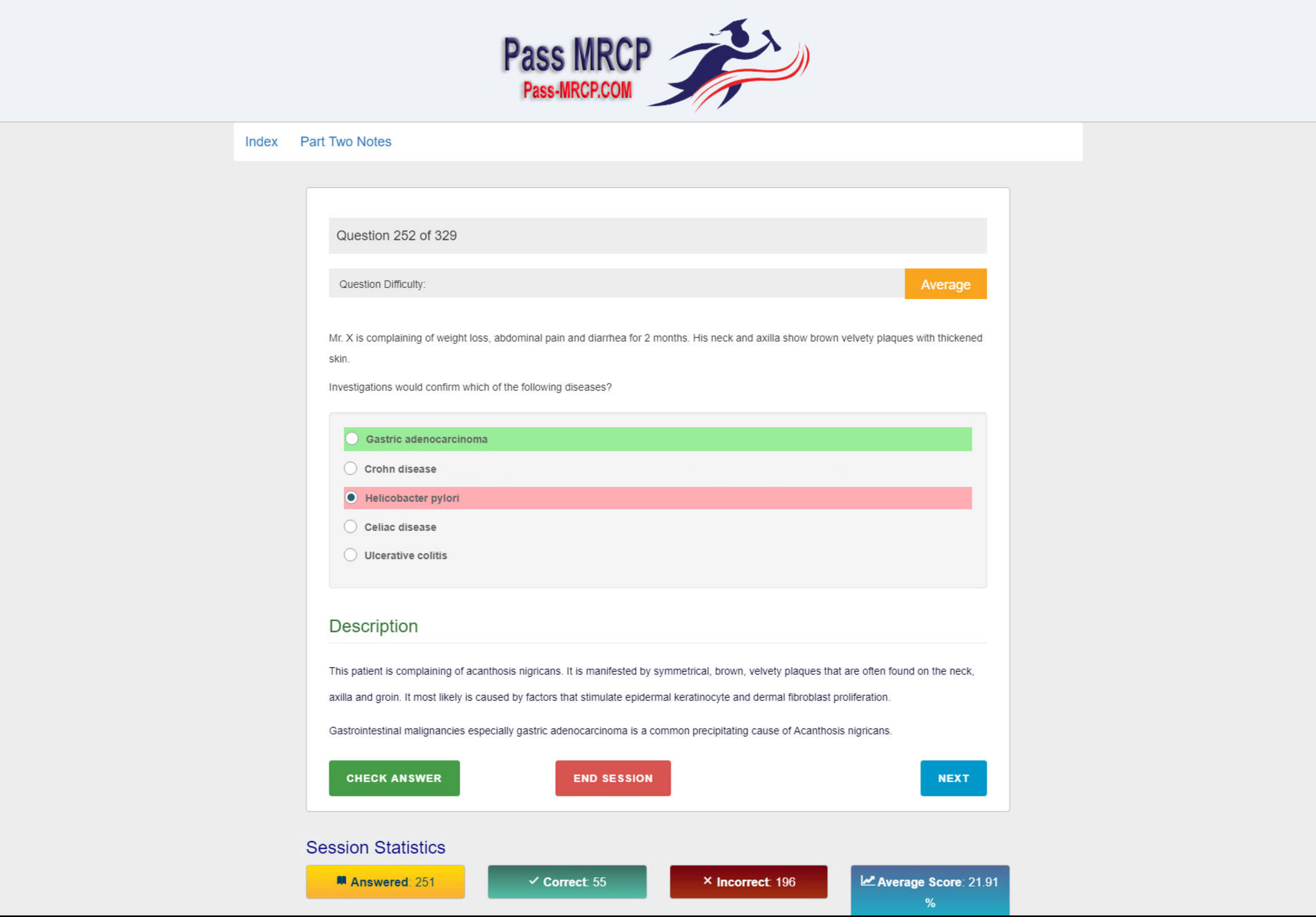
Which one of the following drugs is most likely to be responsible?

○ **Amiodarone**
● **Carbamazepine**
○ **Verapamil**
○ **Clopidogrel**
○ **Digoxin**

## Description

Amiodarone complications and side effects

- Pulmonary fibrosis and pleural effusions
- Hypothyroidism and hyperthyroidism
- Corneal micro-deposits
- Hepatitis
- Photosensitivity
- Blue-grey skin discoloration
- Peripheral neuropathies
- Epididymitis
- Gynecomastia



Question 252 of 329

Question Difficulty: Average

Mr. X is complaining of weight loss, abdominal pain and diarrhea for 2 months. His neck and axilla show brown velvety plaques with thickened skin.

Investigations would confirm which of the following diseases?

- ○ Gastric adenocarcinoma
- ○ Crohn disease
- ● Helicobacter pylori
- ○ Celiac disease
- ○ Ulcerative colitis

## Description

This patient is complaining of acanthosis nigricans. It is manifested by symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin. It most likely is caused by factors that stimulate epidermal keratinocyte and dermal fibroblast proliferation.

Gastrointestinal malignancies especially gastric adenocarcinoma is a common precipitating cause of Acanthosis nigricans.

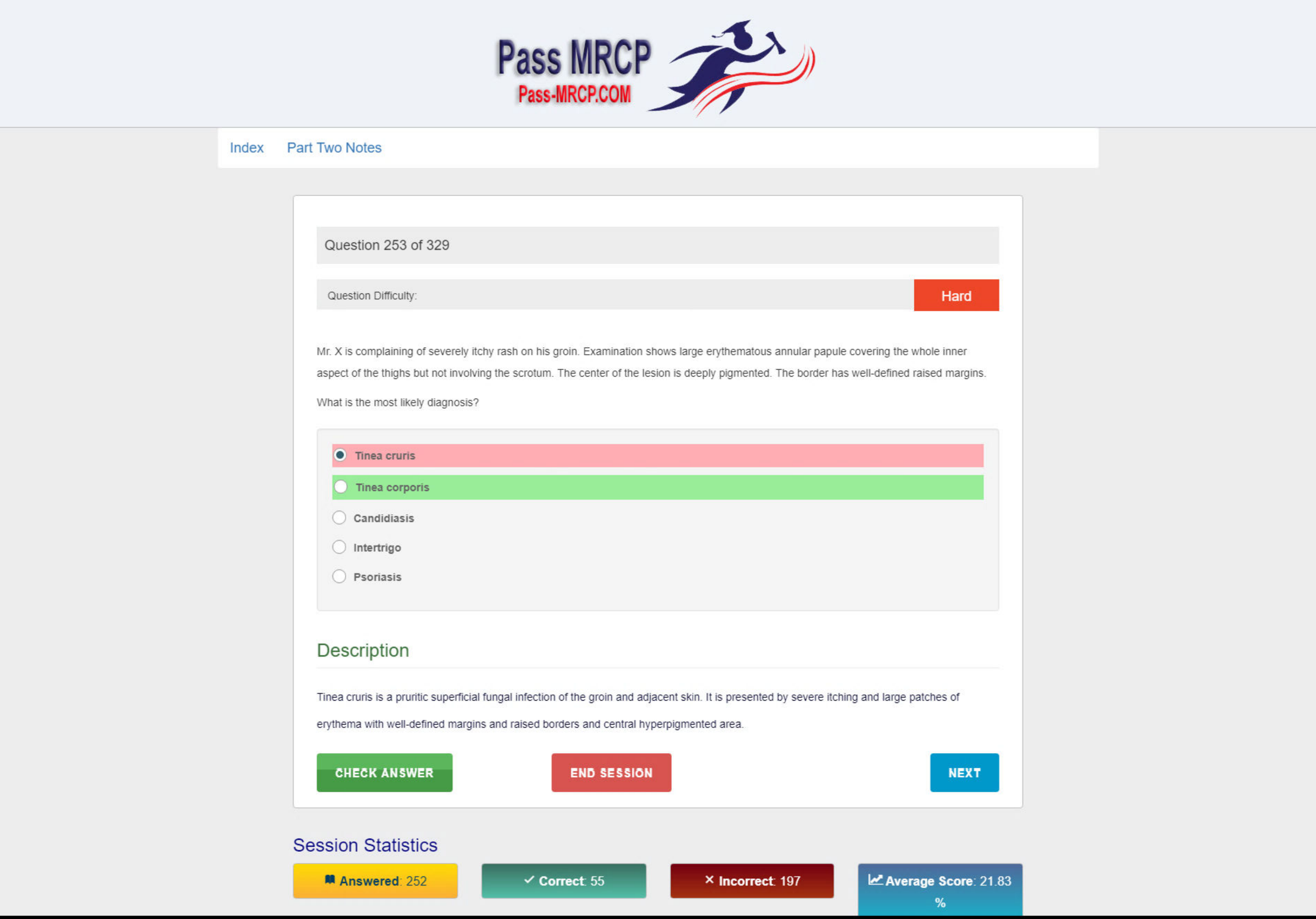
## Session Statistics

**Answered**: 251

✓ **Correct**: 55

× **Incorrect**: 196

**Average Score**: 21.91 %



Question 253 of 329

Question Difficulty: **Hard**

Mr. X is complaining of severely itchy rash on his groin. Examination shows large erythematous annular papule covering the whole inner aspect of the thighs but not involving the scrotum. The center of the lesion is deeply pigmented. The border has well-defined raised margins.

What is the most likely diagnosis?

- ● **Tinea cruris**
- ○ **Tinea corporis**
- ○ **Candidiasis**
- ○ **Intertrigo**
- ○ **Psoriasis**

## Description

Tinea cruris is a pruritic superficial fungal infection of the groin and adjacent skin. It is presented by severe itching and large patches of erythema with well-defined margins and raised borders and central hyperpigmented area.

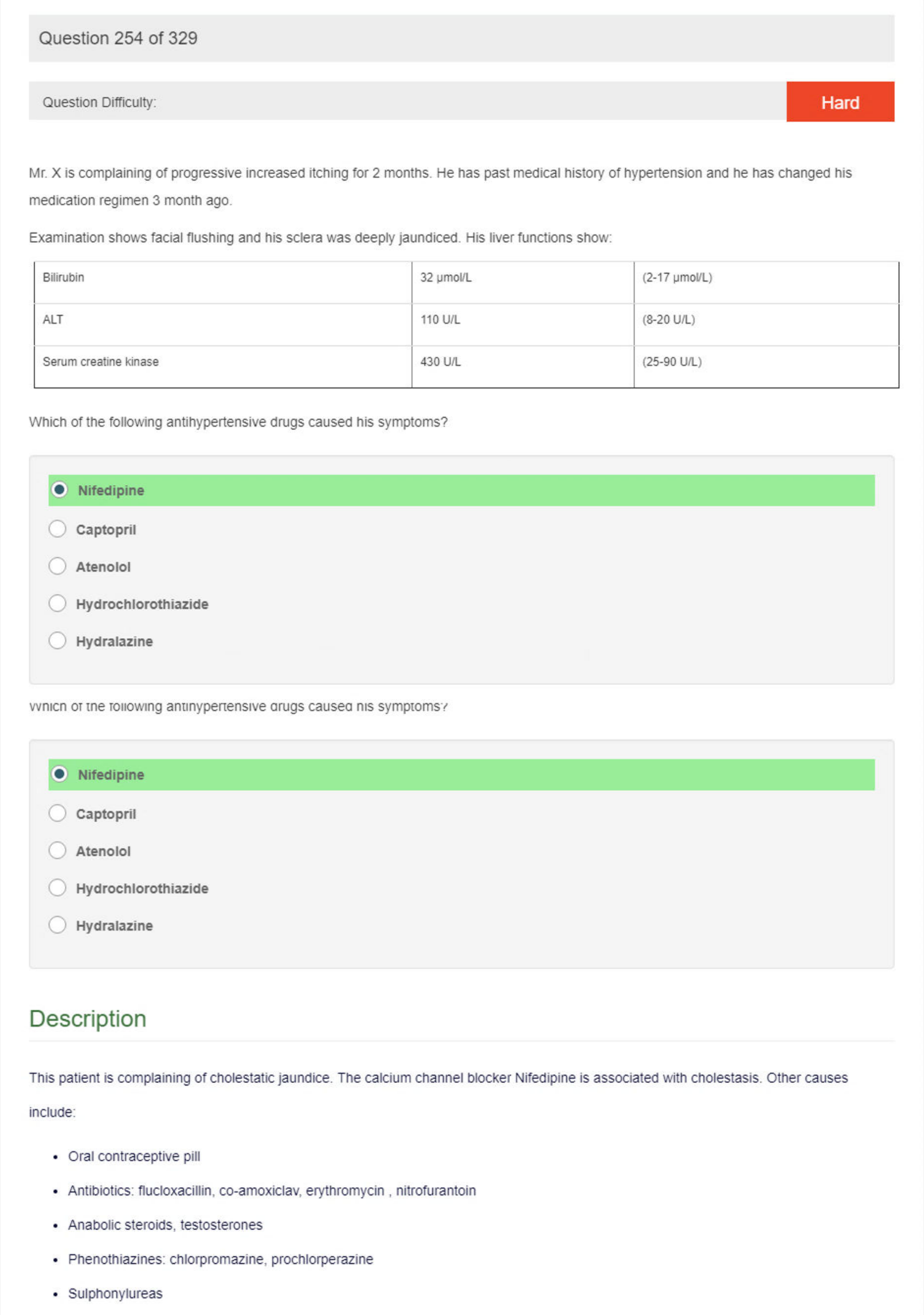
## Session Statistics

**Answered**: 252

✓ **Correct**: 55

× **Incorrect**: 197

**Average Score**: 21.83 %



Question 254 of 329

Question Difficulty: **Hard**

Mr. X is complaining of progressive increased itching for 2 months. He has past medical history of hypertension and he has changed his medication regimen 3 month ago.

Examination shows facial flushing and his sclera was deeply jaundiced. His liver functions show:

| | | |
|---|---|---|
| Bilirubin | 32 μmol/L | (2-17 μmol/L) |
| ALT | 110 U/L | (8-20 U/L) |
| Serum creatine kinase | 430 U/L | (25-90 U/L) |

Which of the following antihypertensive drugs caused his symptoms?

● **Nifedipine**
○ **Captopril**
○ **Atenolol**
○ **Hydrochlorothiazide**
○ **Hydralazine**

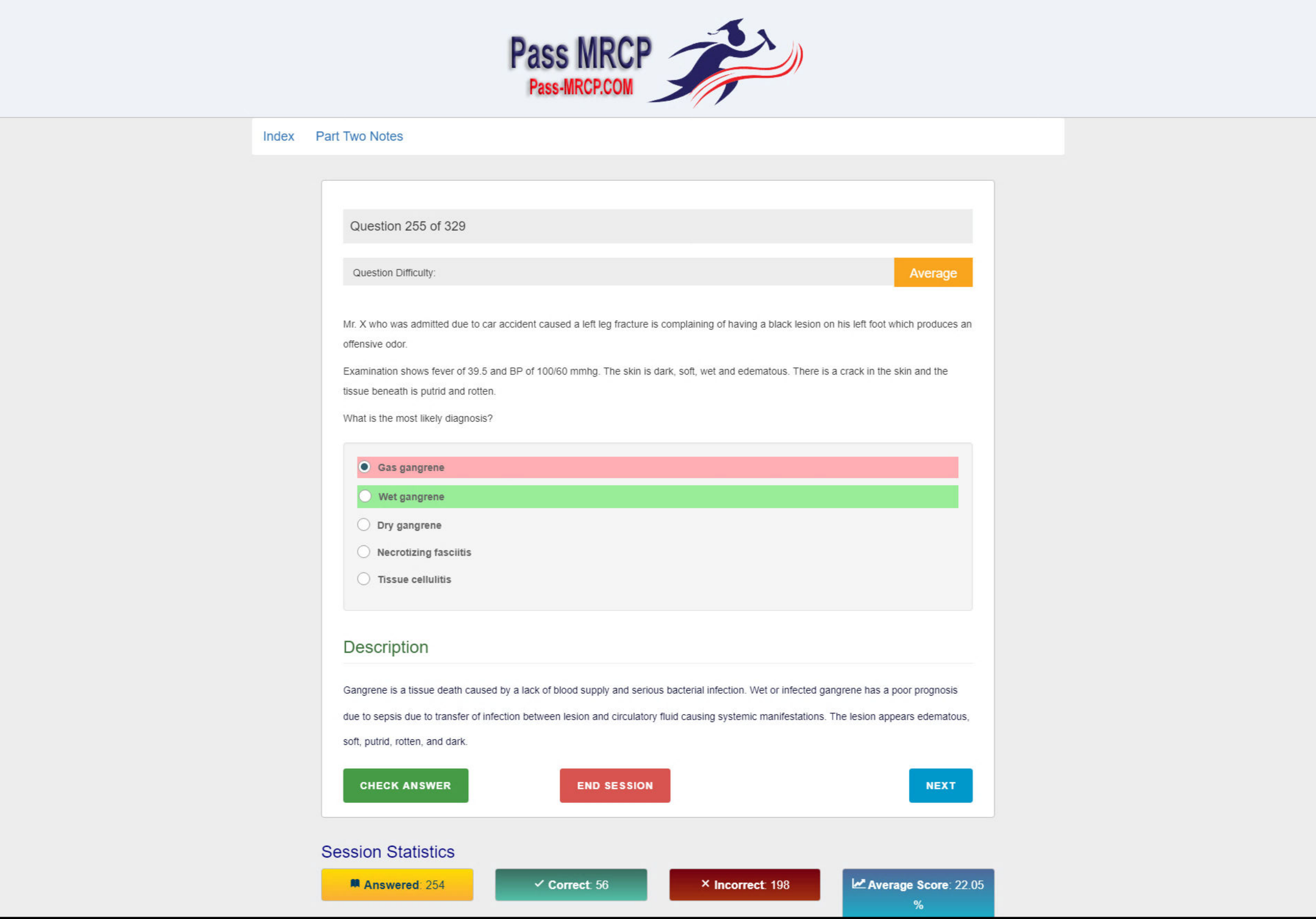
Which of the following antihypertensive drugs caused his symptoms?

● **Nifedipine**
○ **Captopril**
○ **Atenolol**
○ **Hydrochlorothiazide**
○ **Hydralazine**

## Description

This patient is complaining of cholestatic jaundice. The calcium channel blocker Nifedipine is associated with cholestasis. Other causes include:

- Oral contraceptive pill
- Antibiotics: flucloxacillin, co-amoxiclav, erythromycin , nitrofurantoin
- Anabolic steroids, testosterones
- Phenothiazines: chlorpromazine, prochlorperazine
- Sulphonylureas



Question 255 of 329

Question Difficulty: Average

Mr. X who was admitted due to car accident caused a left leg fracture is complaining of having a black lesion on his left foot which produces an offensive odor.

Examination shows fever of 39.5 and BP of 100/60 mmhg. The skin is dark, soft, wet and edematous. There is a crack in the skin and the tissue beneath is putrid and rotten.

What is the most likely diagnosis?

- ● Gas gangrene
- ○ Wet gangrene
- ○ Dry gangrene
- ○ Necrotizing fasciitis
- ○ Tissue cellulitis

## Description

Gangrene is a tissue death caused by a lack of blood supply and serious bacterial infection. Wet or infected gangrene has a poor prognosis due to sepsis due to transfer of infection between lesion and circulatory fluid causing systemic manifestations. The lesion appears edematous, soft, putrid, rotten, and dark.

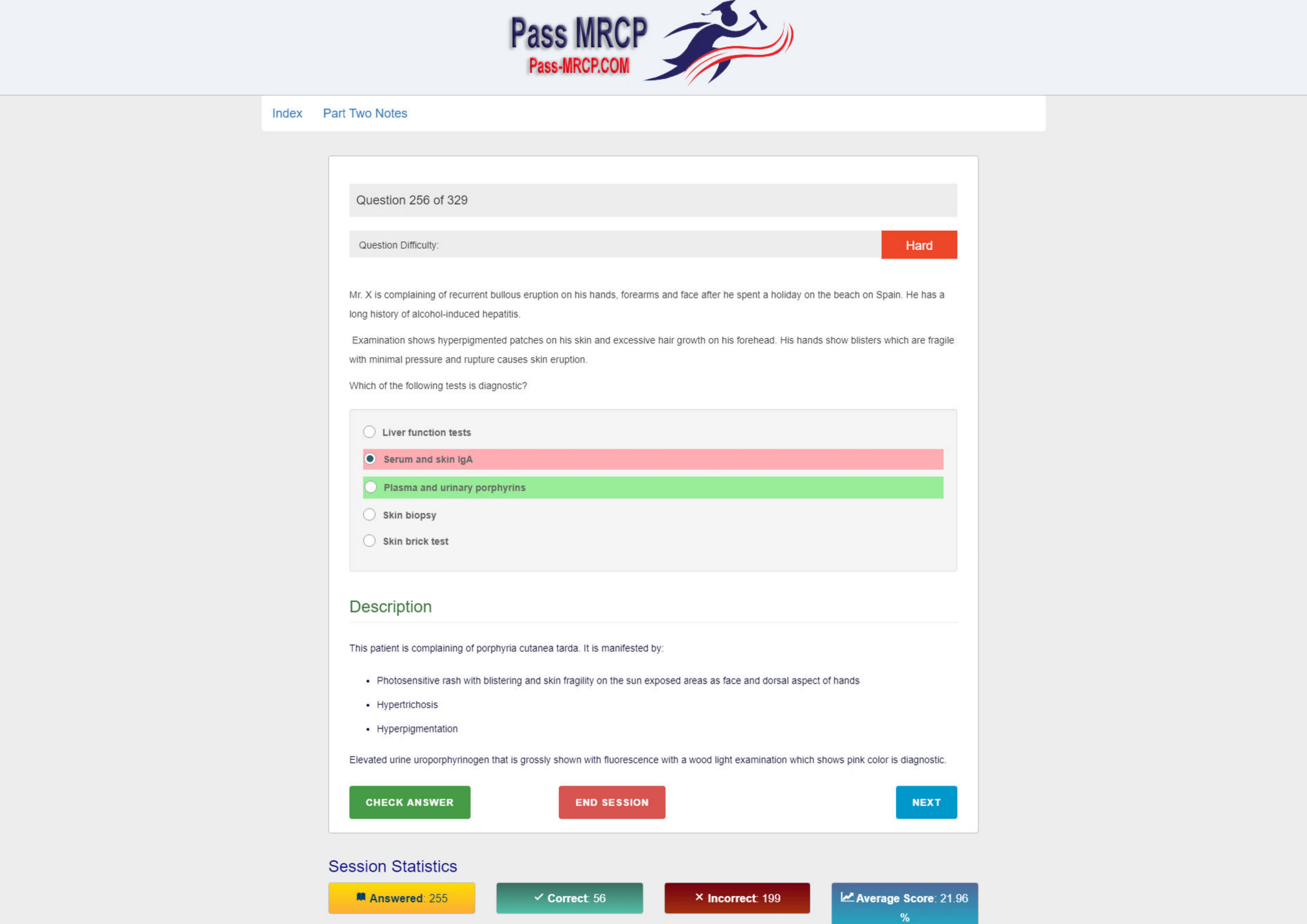
## Session Statistics

**Answered**: 254

✓ **Correct**: 56

✕ **Incorrect**: 198

**Average Score**: 22.05 %



Question 256 of 329

Question Difficulty: **Hard**

Mr. X is complaining of recurrent bullous eruption on his hands, forearms and face after he spent a holiday on the beach on Spain. He has a long history of alcohol-induced hepatitis.

Examination shows hyperpigmented patches on his skin and excessive hair growth on his forehead. His hands show blisters which are fragile with minimal pressure and rupture causes skin eruption.

Which of the following tests is diagnostic?

○ **Liver function tests**
● **Serum and skin IgA**
○ **Plasma and urinary porphyrins**
○ **Skin biopsy**
○ **Skin brick test**

## Description

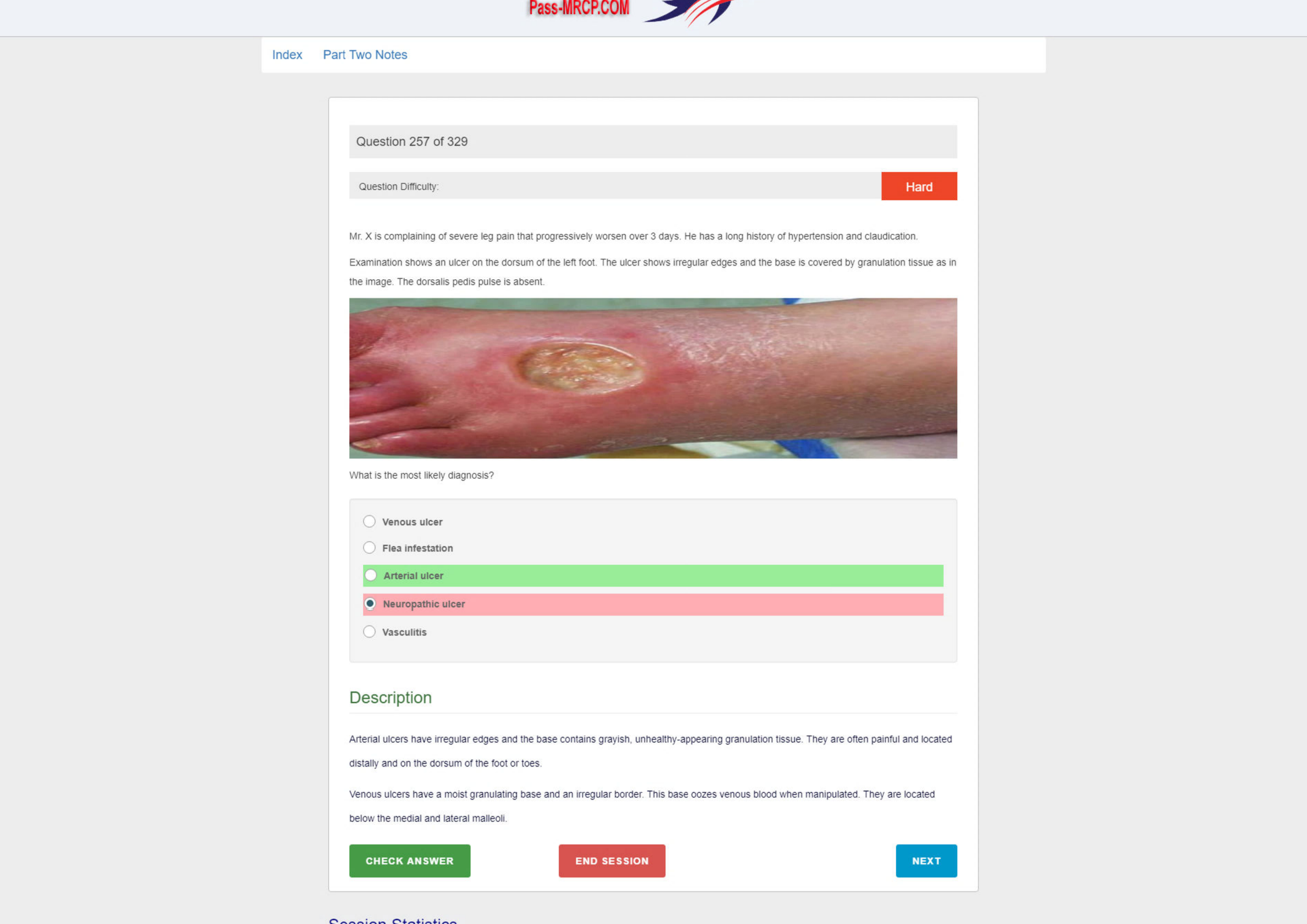
This patient is complaining of porphyria cutanea tarda. It is manifested by:

- Photosensitive rash with blistering and skin fragility on the sun exposed areas as face and dorsal aspect of hands
- Hypertrichosis
- Hyperpigmentation

Elevated urine uroporphyrinogen that is grossly shown with fluorescence with a wood light examination which shows pink color is diagnostic.

Session Statistics

**Answered**: 255
✓ **Correct**: 56
✕ **Incorrect**: 199
**Average Score**: 21.96 %



Question 257 of 329

Question Difficulty: **Hard**

Mr. X is complaining of severe leg pain that progressively worsen over 3 days. He has a long history of hypertension and claudication.

Examination shows an ulcer on the dorsum of the left foot. The ulcer shows irregular edges and the base is covered by granulation tissue as in the image. The dorsalis pedis pulse is absent.

What is the most likely diagnosis?

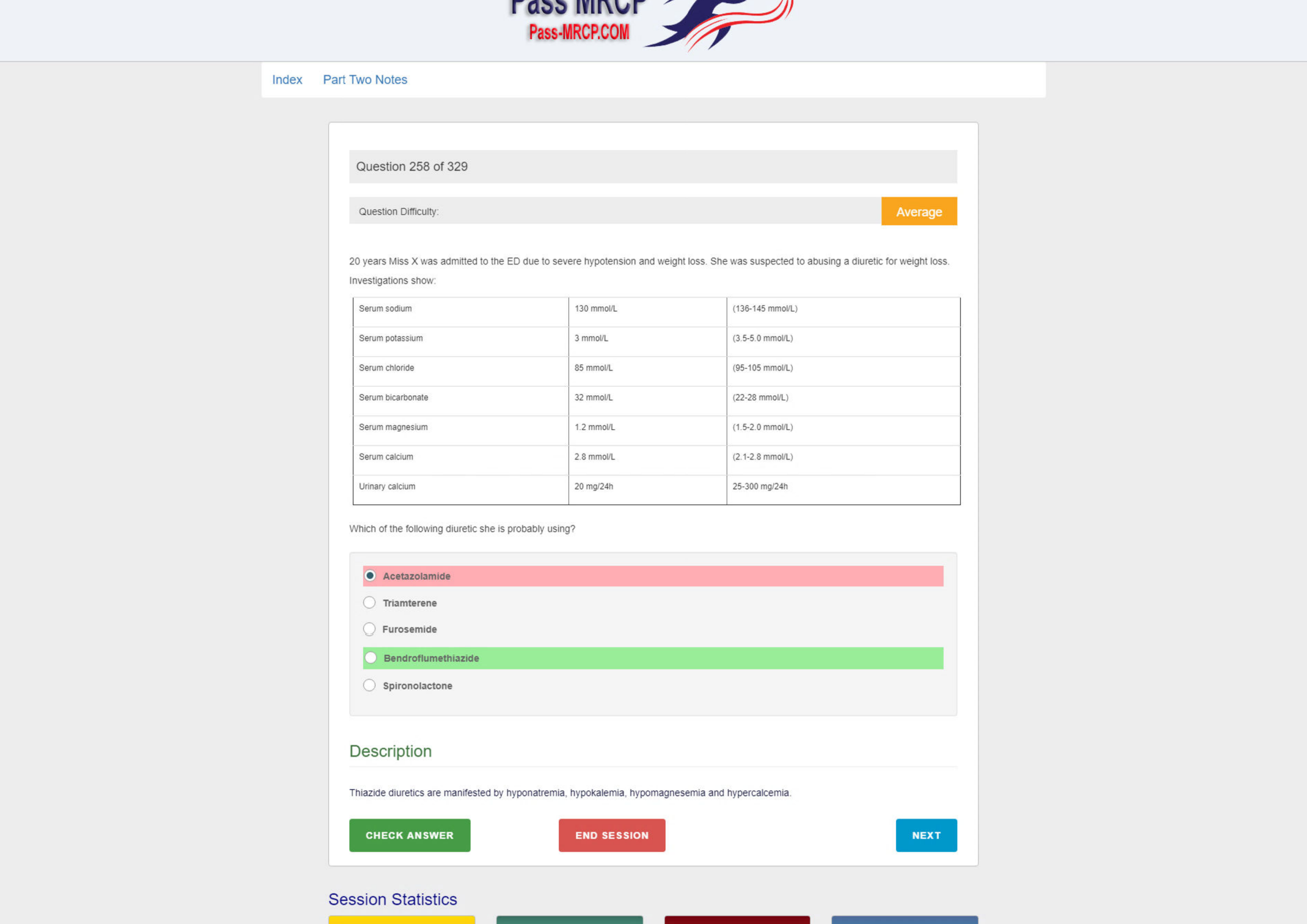
○ **Venous ulcer**
○ **Flea infestation**
○ **Arterial ulcer**
● **Neuropathic ulcer**
○ **Vasculitis**

## Description

Arterial ulcers have irregular edges and the base contains grayish, unhealthy-appearing granulation tissue. They are often painful and located distally and on the dorsum of the foot or toes.

Venous ulcers have a moist granulating base and an irregular border. This base oozes venous blood when manipulated. They are located below the medial and lateral malleoli.

## Session Statistics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Question 258 of 329

Question Difficulty: Average

20 years Miss X was admitted to the ED due to severe hypotension and weight loss. She was suspected to abusing a diuretic for weight loss.

Investigations show:

| | | |
|---|---|---|
| Serum sodium | 130 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3 mmol/L | (3.5-5.0 mmol/L) |
| Serum chloride | 85 mmol/L | (95-105 mmol/L) |
| Serum bicarbonate | 32 mmol/L | (22-28 mmol/L) |
| Serum magnesium | 1.2 mmol/L | (1.5-2.0 mmol/L) |
| Serum calcium | 2.8 mmol/L | (2.1-2.8 mmol/L) |
| Urinary calcium | 20 mg/24h | 25-300 mg/24h |

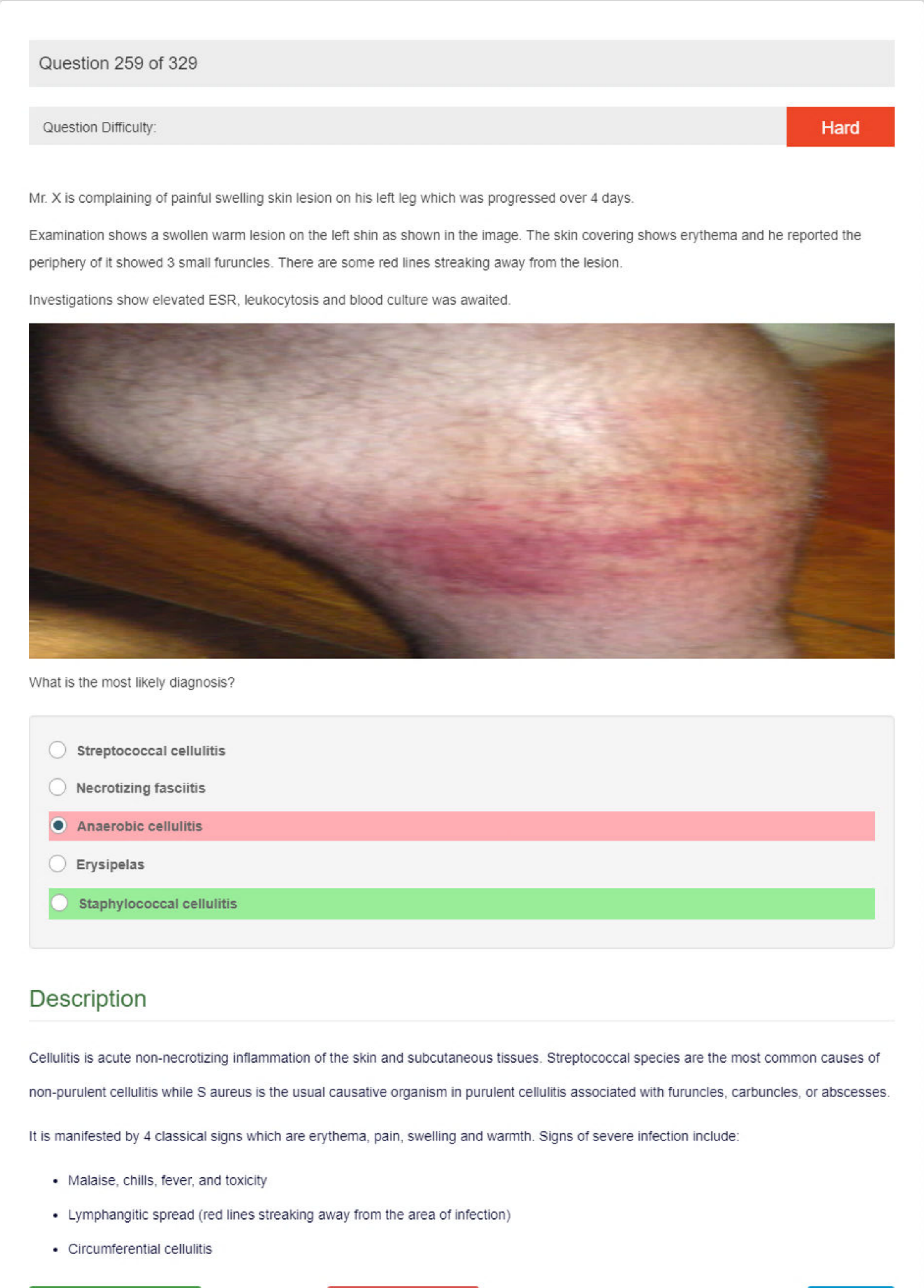
Which of the following diuretic she is probably using?

- ● Acetazolamide
- ○ Triamterene
- ○ Furosemide
- ○ Bendroflumethiazide
- ○ Spironolactone

## Description

Thiazide diuretics are manifested by hyponatremia, hypokalemia, hypomagnesemia and hypercalcemia.

CHECK ANSWER
END SESSION
NEXT
Session Statistics



Question 259 of 329

Question Difficulty: **Hard**

Mr. X is complaining of painful swelling skin lesion on his left leg which was progressed over 4 days.

Examination shows a swollen warm lesion on the left shin as shown in the image. The skin covering shows erythema and he reported the periphery of it showed 3 small furuncles. There are some red lines streaking away from the lesion.

Investigations show elevated ESR, leukocytosis and blood culture was awaited.

What is the most likely diagnosis?

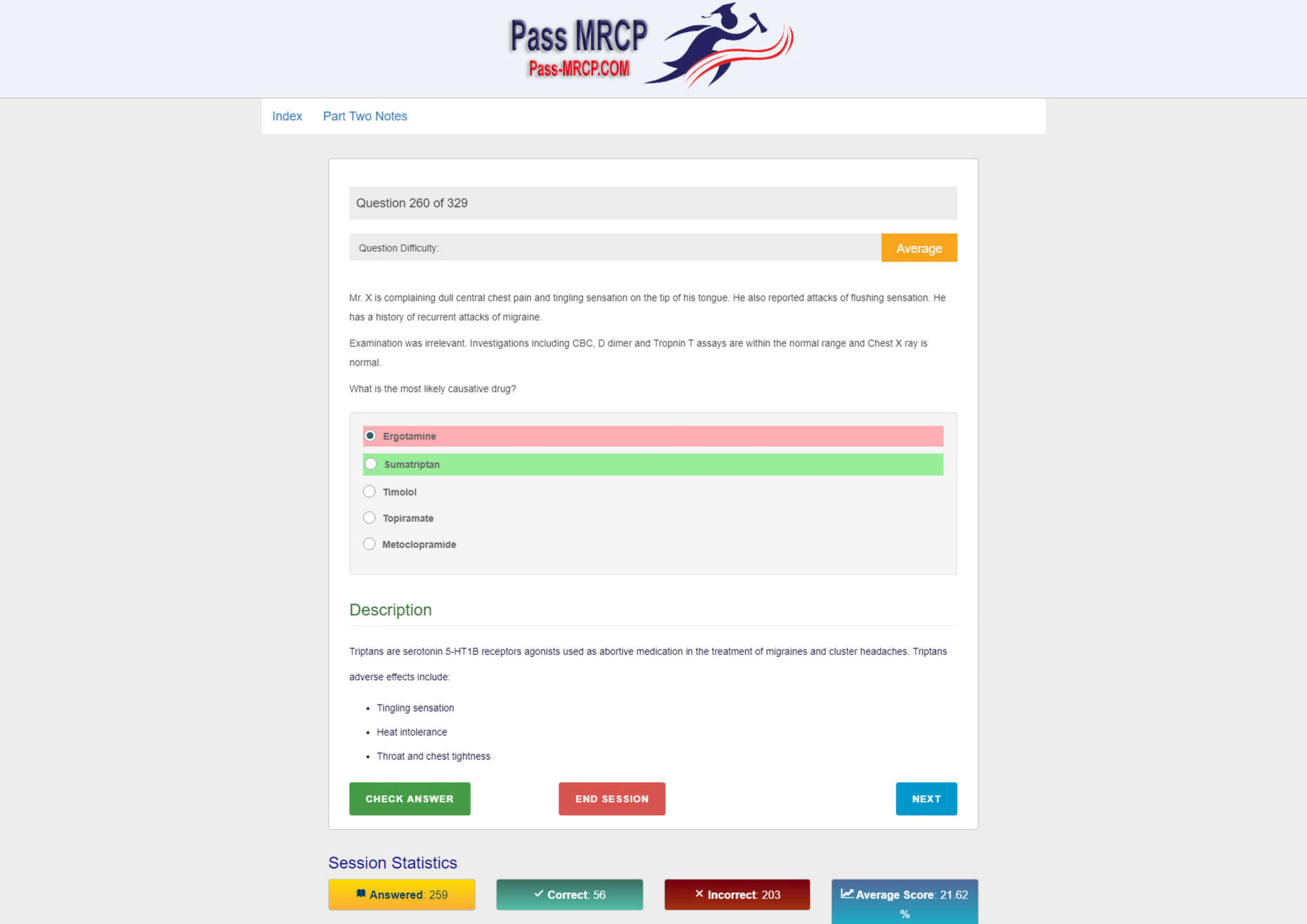
○ **Streptococcal cellulitis**
○ **Necrotizing fasciitis**
● **Anaerobic cellulitis**
○ **Erysipelas**
○ **Staphylococcal cellulitis**

## Description

Cellulitis is acute non-necrotizing inflammation of the skin and subcutaneous tissues. Streptococcal species are the most common causes of non-purulent cellulitis while S aureus is the usual causative organism in purulent cellulitis associated with furuncles, carbuncles, or abscesses.

It is manifested by 4 classical signs which are erythema, pain, swelling and warmth. Signs of severe infection include:

- Malaise, chills, fever, and toxicity
- Lymphangitic spread (red lines streaking away from the area of infection)
- Circumferential cellulitis



Question 260 of 329

Question Difficulty: Average

Mr. X is complaining dull central chest pain and tingling sensation on the tip of his tongue. He also reported attacks of flushing sensation. He has a history of recurrent attacks of migraine.

Examination was irrelevant. Investigations including CBC, D dimer and Tropnin T assays are within the normal range and Chest X ray is normal.

What is the most likely causative drug?

● **Ergotamine**
○ **Sumatriptan**
○ **Timolol**
○ **Topiramate**
○ **Metoclopramide**

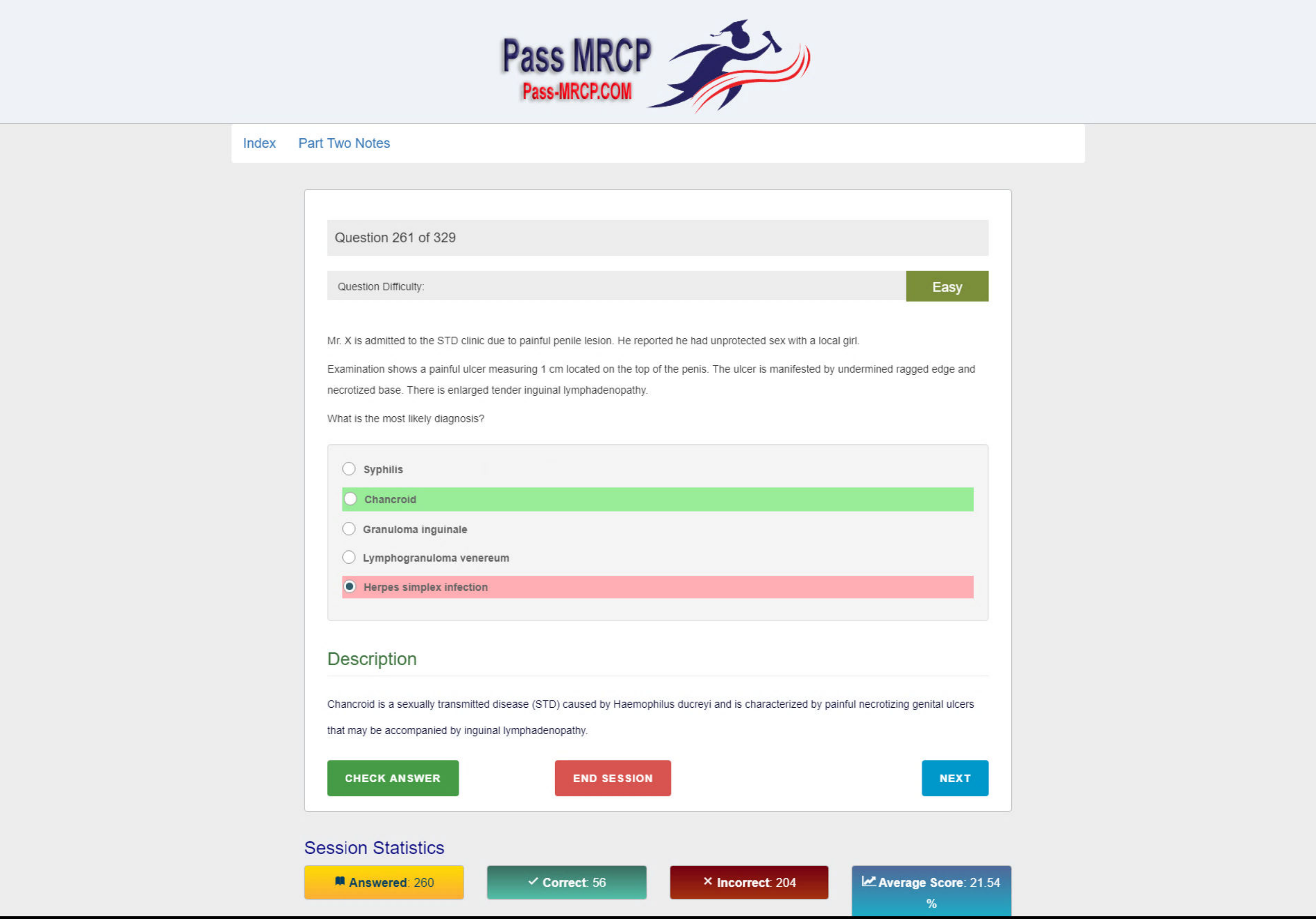
## Description

Triptans are serotonin 5-HT1B receptors agonists used as abortive medication in the treatment of migraines and cluster headaches. Triptans adverse effects include:

- Tingling sensation
- Heat intolerance
- Throat and chest tightness

Session Statistics

**Answered**: 259
✓ **Correct**: 56
✕ **Incorrect**: 203
**Average Score**: 21.62 %



Question 261 of 329

Question Difficulty: Easy

Mr. X is admitted to the STD clinic due to painful penile lesion. He reported he had unprotected sex with a local girl.

Examination shows a painful ulcer measuring 1 cm located on the top of the penis. The ulcer is manifested by undermined ragged edge and necrotized base. There is enlarged tender inguinal lymphadenopathy.

What is the most likely diagnosis?

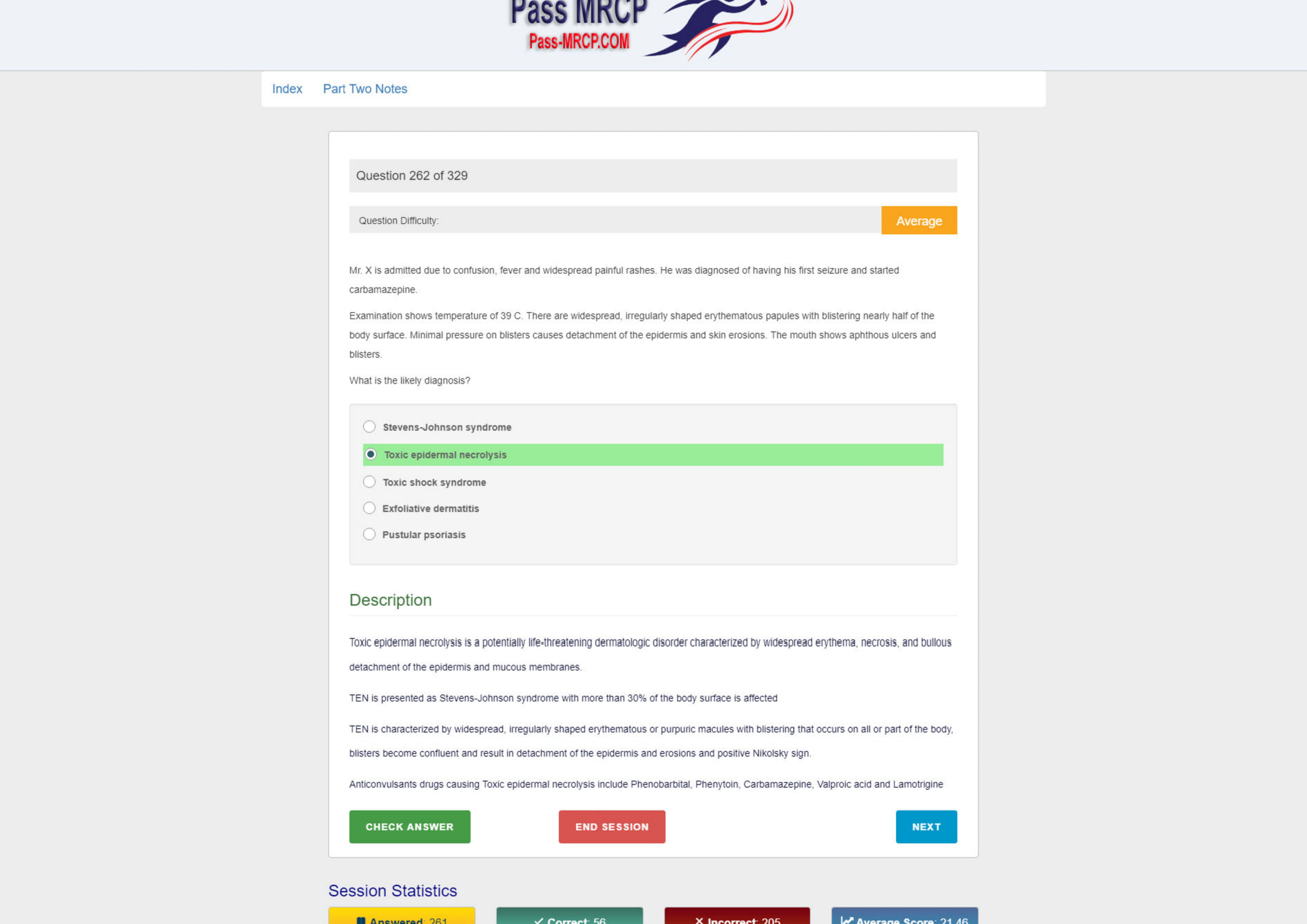
- ○ Syphilis
- ○ Chancroid
- ○ Granuloma inguinale
- ○ Lymphogranuloma venereum
- ● Herpes simplex infection

## Description

Chancroid is a sexually transmitted disease (STD) caused by Haemophilus ducreyi and is characterized by painful necrotizing genital ulcers that may be accompanied by inguinal lymphadenopathy.

## Session Statistics

Answered: 260
✓ Correct: 56
× Incorrect: 204
Average Score: 21.54 %



Question 262 of 329

Question Difficulty: Average

Mr. X is admitted due to confusion, fever and widespread painful rashes. He was diagnosed of having his first seizure and started carbamazepine.

Examination shows temperature of 39 C. There are widespread, irregularly shaped erythematous papules with blistering nearly half of the body surface. Minimal pressure on blisters causes detachment of the epidermis and skin erosions. The mouth shows aphthous ulcers and blisters.

What is the likely diagnosis?

○ **Stevens-Johnson syndrome**

● **Toxic epidermal necrolysis**

○ **Toxic shock syndrome**

○ **Exfoliative dermatitis**

○ **Pustular psoriasis**

## Description

Toxic epidermal necrolysis is a potentially life-threatening dermatologic disorder characterized by widespread erythema, necrosis, and bullous detachment of the epidermis and mucous membranes.

TEN is presented as Stevens-Johnson syndrome with more than 30% of the body surface is affected

TEN is characterized by widespread, irregularly shaped erythematous or purpuric macules with blistering that occurs on all or part of the body, blisters become confluent and result in detachment of the epidermis and erosions and positive Nikolsky sign.

Anticonvulsants drugs causing Toxic epidermal necrolysis include Phenobarbital, Phenytoin, Carbamazepine, Valproic acid and Lamotrigine

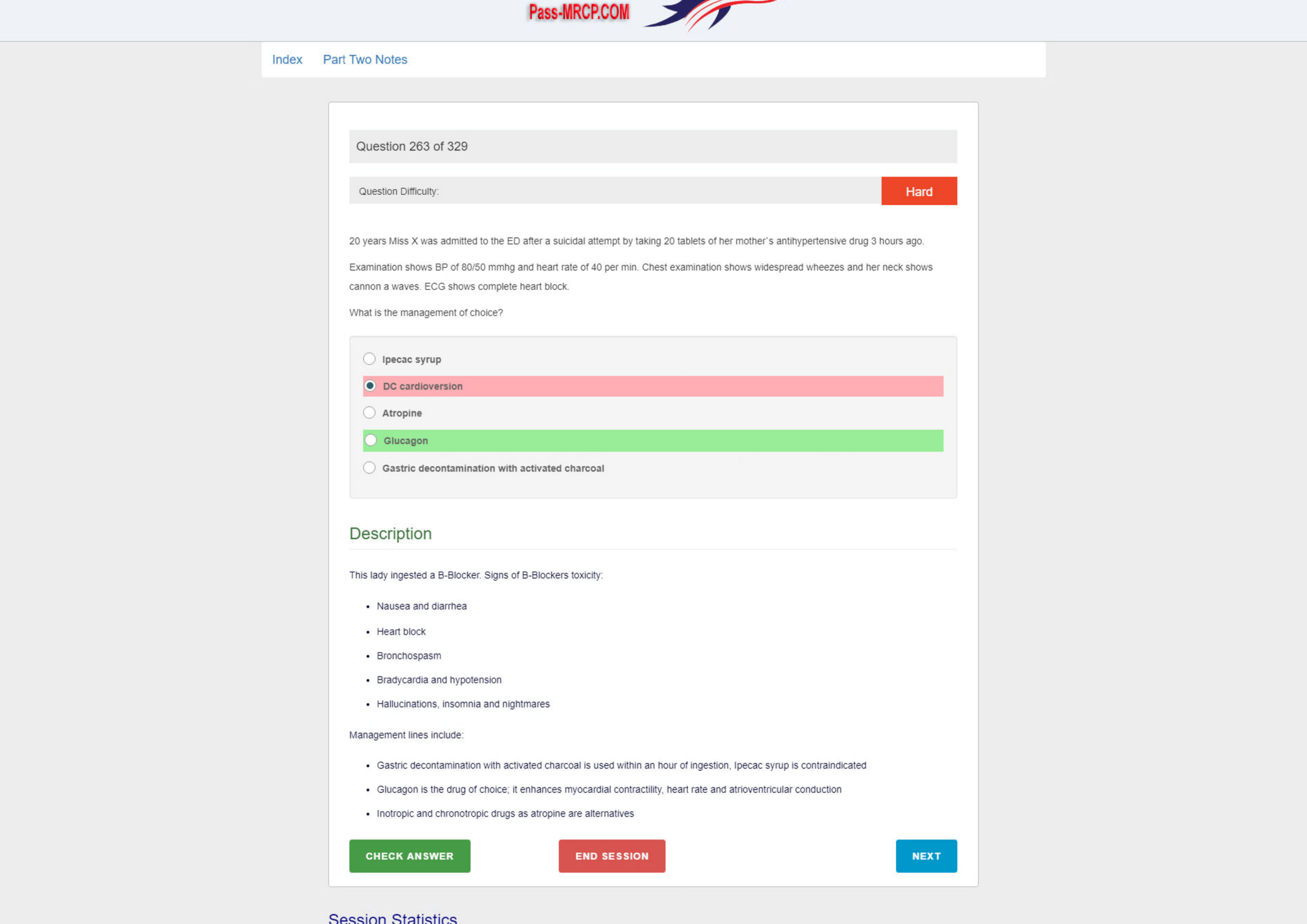
Session Statistics

Answered: 261

✓ Correct: 56

✕ Incorrect: 205

Average Score: 21.46



Question 263 of 329

Question Difficulty: **Hard**

20 years Miss X was admitted to the ED after a suicidal attempt by taking 20 tablets of her mother`s antihypertensive drug 3 hours ago.

Examination shows BP of 80/50 mmhg and heart rate of 40 per min. Chest examination shows widespread wheezes and her neck shows cannon a waves. ECG shows complete heart block.

What is the management of choice?

○ **Ipecac syrup**

● **DC cardioversion**

○ **Atropine**

○ **Glucagon**

○ **Gastric decontamination with activated charcoal**

## Description

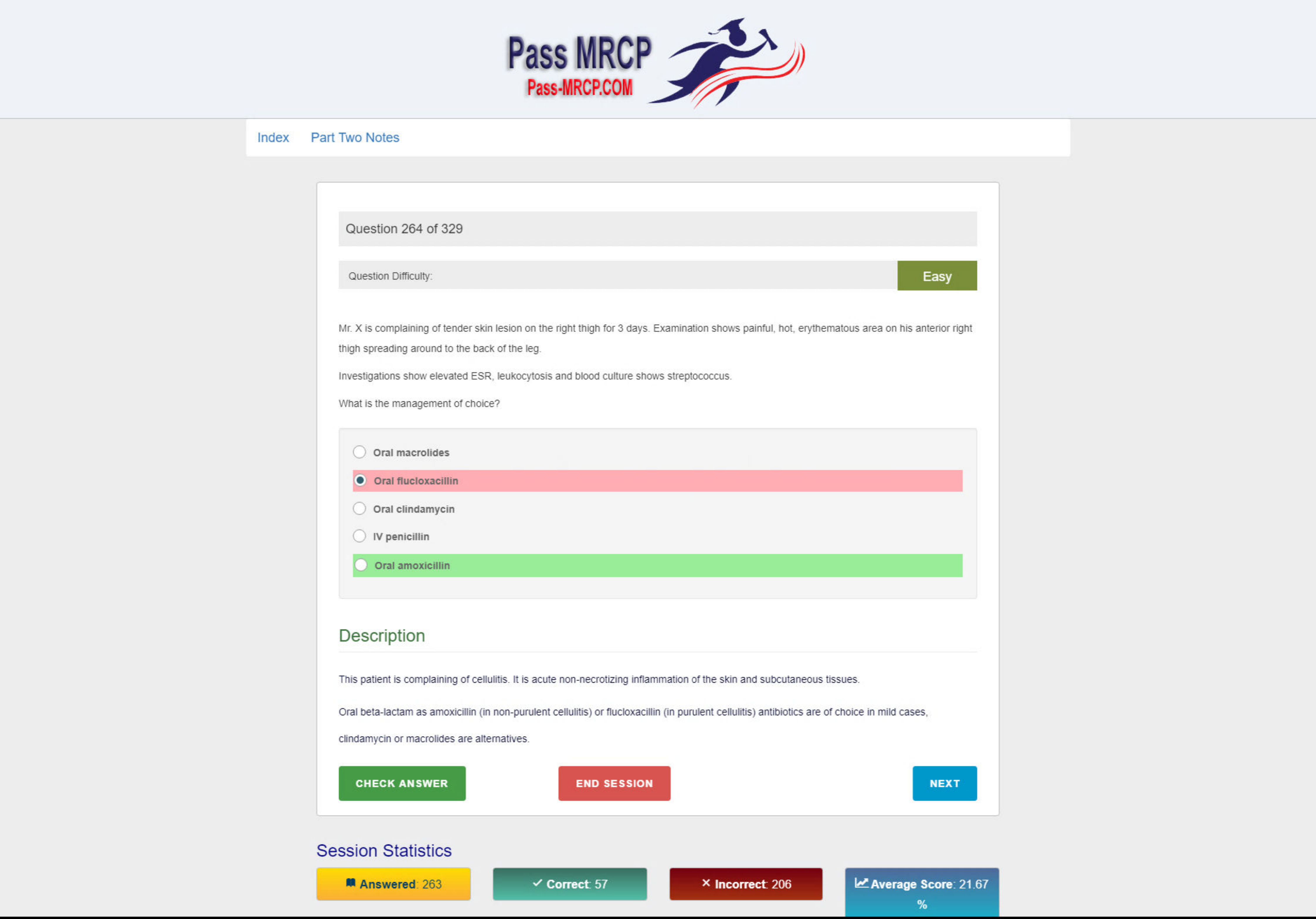
This lady ingested a B-Blocker. Signs of B-Blockers toxicity:

- Nausea and diarrhea
- Heart block
- Bronchospasm
- Bradycardia and hypotension
- Hallucinations, insomnia and nightmares

Management lines include:

- Gastric decontamination with activated charcoal is used within an hour of ingestion, Ipecac syrup is contraindicated
- Glucagon is the drug of choice; it enhances myocardial contractility, heart rate and atrioventricular conduction
- Inotropic and chronotropic drugs as atropine are alternatives

Session Statistics



Question 264 of 329

Question Difficulty: Easy

Mr. X is complaining of tender skin lesion on the right thigh for 3 days. Examination shows painful, hot, erythematous area on his anterior right thigh spreading around to the back of the leg.

Investigations show elevated ESR, leukocytosis and blood culture shows streptococcus.

What is the management of choice?

- ○ **Oral macrolides**
- ● **Oral flucloxacillin**
- ○ **Oral clindamycin**
- ○ **IV penicillin**
- ○ **Oral amoxicillin**

## Description

This patient is complaining of cellulitis. It is acute non-necrotizing inflammation of the skin and subcutaneous tissues.

Oral beta-lactam as amoxicillin (in non-purulent cellulitis) or flucloxacillin (in purulent cellulitis) antibiotics are of choice in mild cases, clindamycin or macrolides are alternatives.

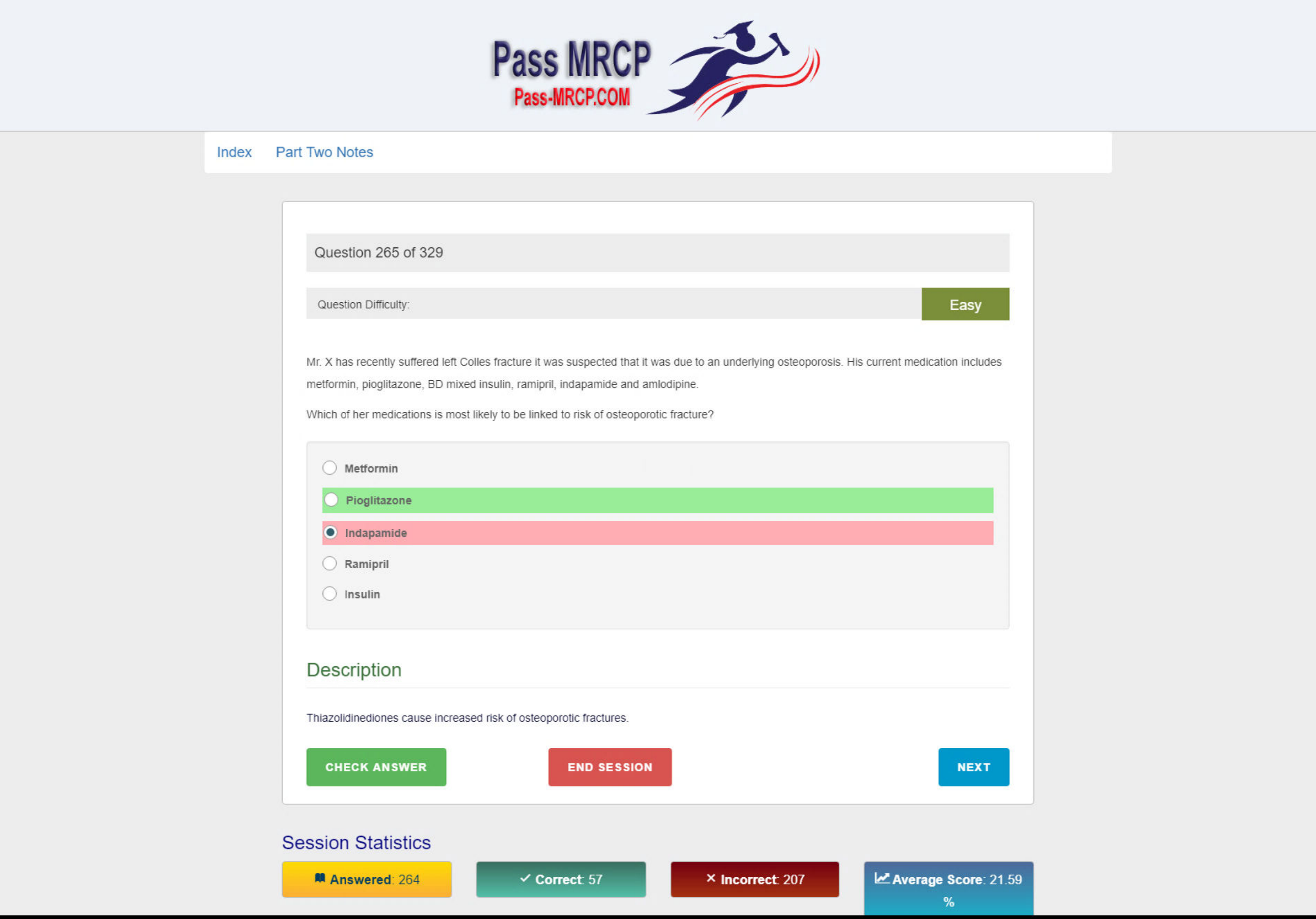
Session Statistics

**Answered**: 263

✓ **Correct**: 57

✕ **Incorrect**: 206

**Average Score**: 21.67 %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Question 265 of 329

Question Difficulty: Easy

Mr. X has recently suffered left Colles fracture it was suspected that it was due to an underlying osteoporosis. His current medication includes metformin, pioglitazone, BD mixed insulin, ramipril, indapamide and amlodipine.

Which of her medications is most likely to be linked to risk of osteoporotic fracture?

- ○ **Metformin**
- ○ **Pioglitazone**
- ● **Indapamide**
- ○ **Ramipril**
- ○ **Insulin**

## Description

Thiazolidinediones cause increased risk of osteoporotic fractures.

CHECK ANSWER
END SESSION
NEXT

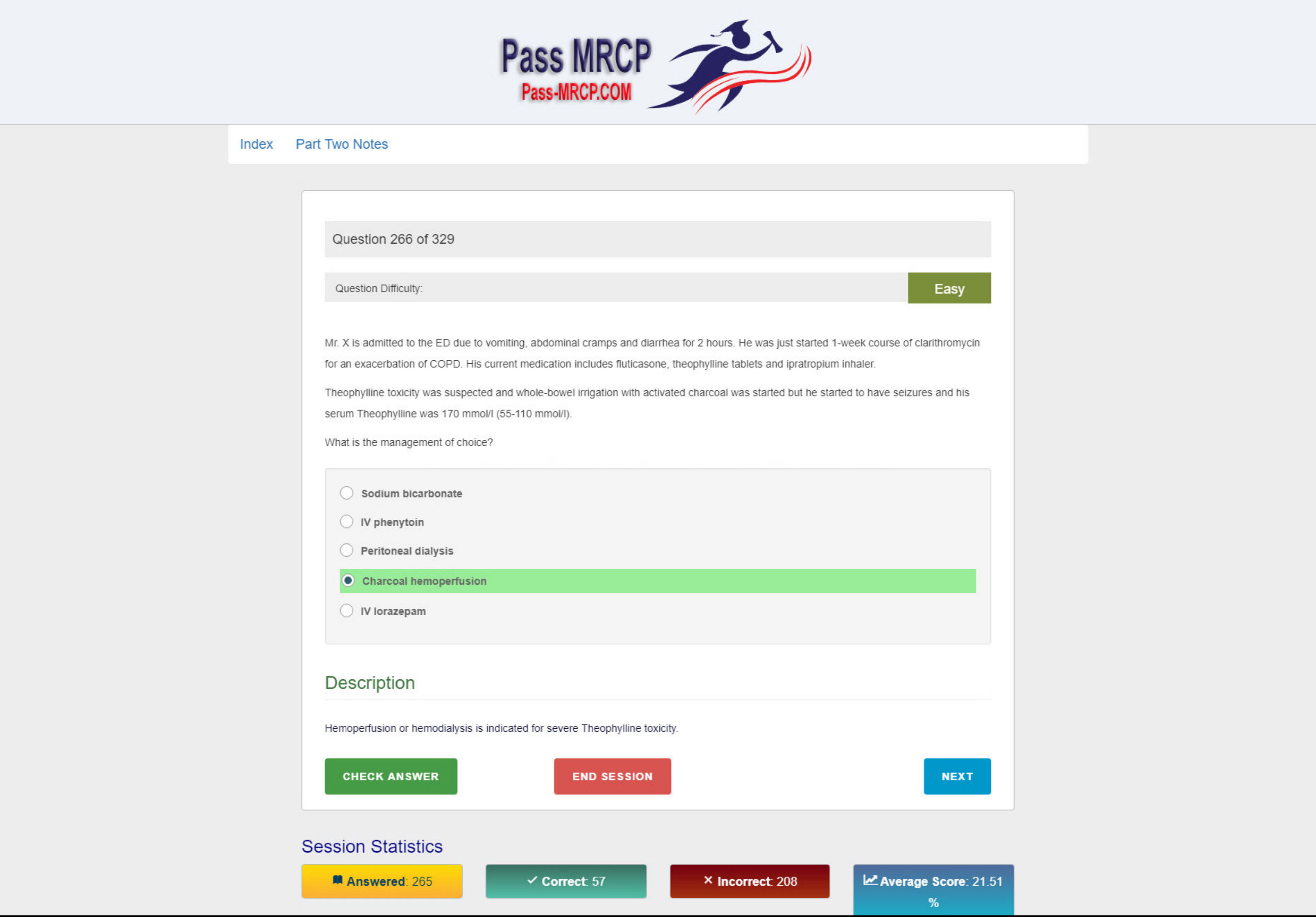
## Session Statistics

**Answered**: 264

✓ **Correct**: 57

✕ **Incorrect**: 207

**Average Score**: 21.59 %



Question 266 of 329

Question Difficulty: Easy

Mr. X is admitted to the ED due to vomiting, abdominal cramps and diarrhea for 2 hours. He was just started 1-week course of clarithromycin for an exacerbation of COPD. His current medication includes fluticasone, theophylline tablets and ipratropium inhaler.

Theophylline toxicity was suspected and whole-bowel irrigation with activated charcoal was started but he started to have seizures and his serum Theophylline was 170 mmol/l (55-110 mmol/l).

What is the management of choice?

- ○ **Sodium bicarbonate**
- ○ **IV phenytoin**
- ○ **Peritoneal dialysis**
- ● **Charcoal hemoperfusion**
- ○ **IV lorazepam**

## Description

Hemoperfusion or hemodialysis is indicated for severe Theophylline toxicity.

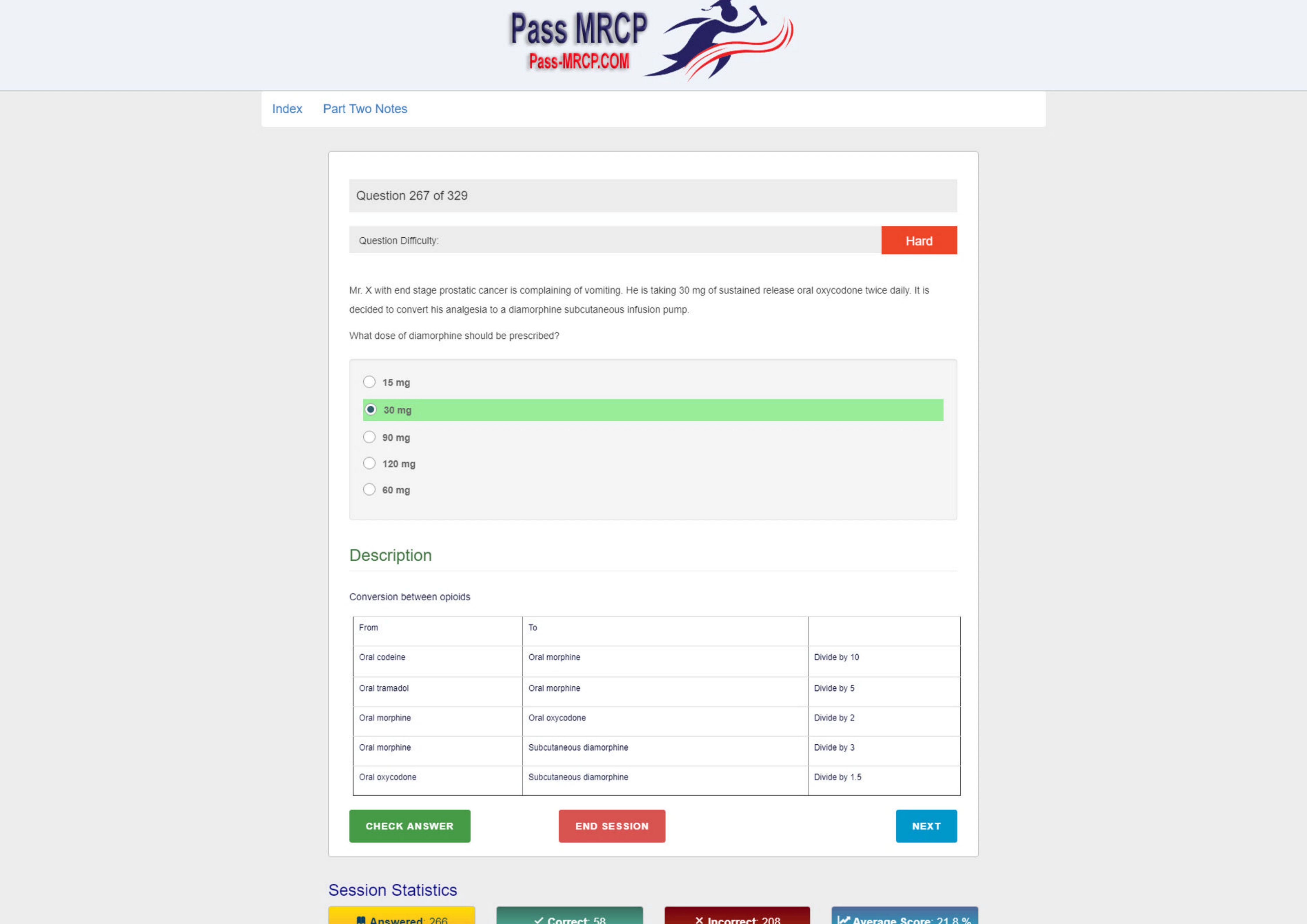
## Session Statistics

**Answered**: 265

✓ **Correct**: 57

✕ **Incorrect**: 208

**Average Score**: 21.51 %



Question 267 of 329

Question Difficulty: Hard

Mr. X with end stage prostatic cancer is complaining of vomiting. He is taking 30 mg of sustained release oral oxycodone twice daily. It is decided to convert his analgesia to a diamorphine subcutaneous infusion pump.

What dose of diamorphine should be prescribed?

- ○ 15 mg
- ● 30 mg
- ○ 90 mg
- ○ 120 mg
- ○ 60 mg

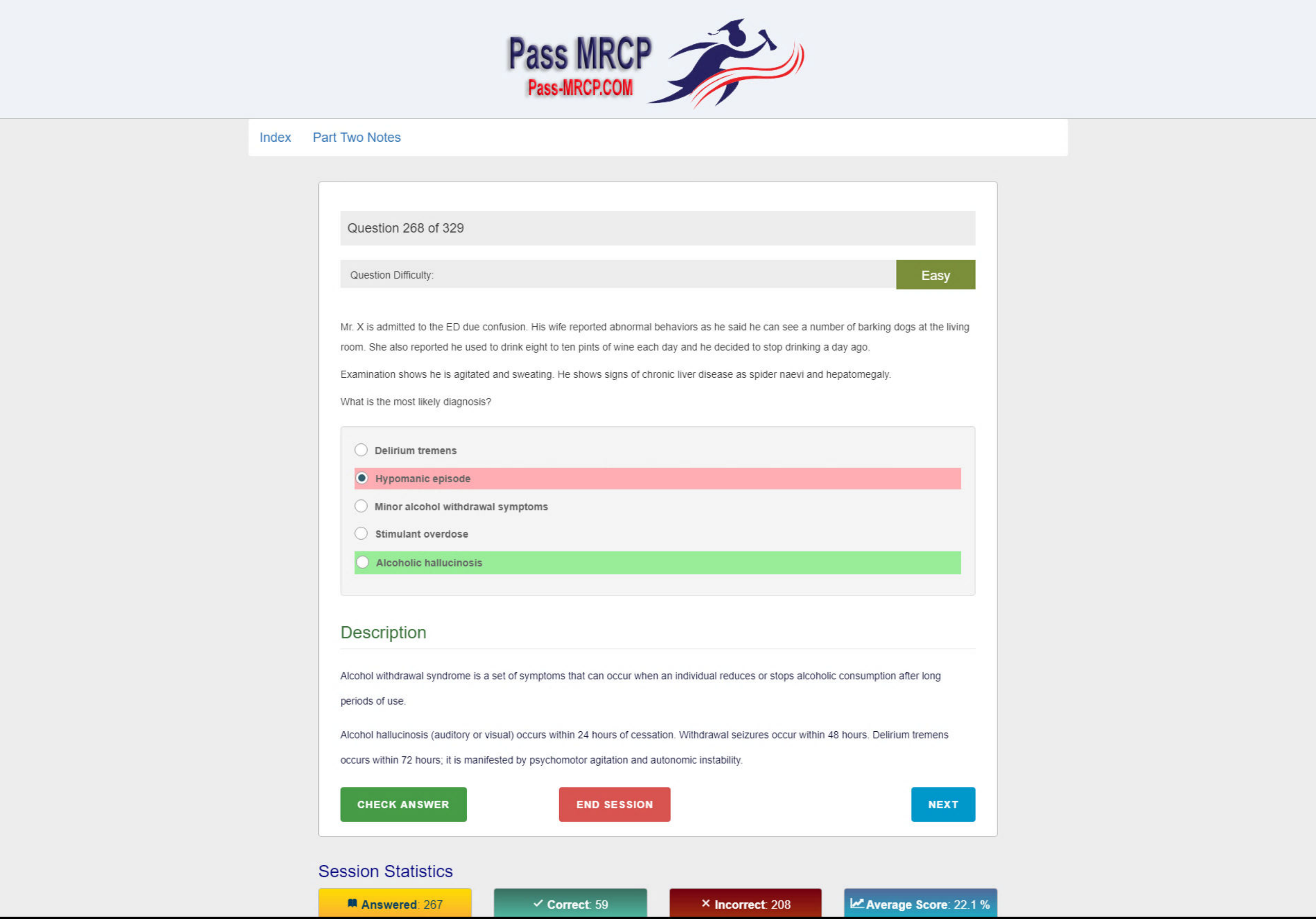
## Description

Conversion between opioids

| From | To | |
|---|---|---|
| Oral codeine | Oral morphine | Divide by 10 |
| Oral tramadol | Oral morphine | Divide by 5 |
| Oral morphine | Oral oxycodone | Divide by 2 |
| Oral morphine | Subcutaneous diamorphine | Divide by 3 |
| Oral oxycodone | Subcutaneous diamorphine | Divide by 1.5 |

Session Statistics

Answered: 266
Correct: 58
Incorrect: 208
Average Score: 21.8 %



Question 268 of 329

Question Difficulty: Easy

Mr. X is admitted to the ED due confusion. His wife reported abnormal behaviors as he said he can see a number of barking dogs at the living room. She also reported he used to drink eight to ten pints of wine each day and he decided to stop drinking a day ago.

Examination shows he is agitated and sweating. He shows signs of chronic liver disease as spider naevi and hepatomegaly.

What is the most likely diagnosis?

- ○ Delirium tremens
- ● Hypomanic episode
- ○ Minor alcohol withdrawal symptoms
- ○ Stimulant overdose
- ○ Alcoholic hallucinosis

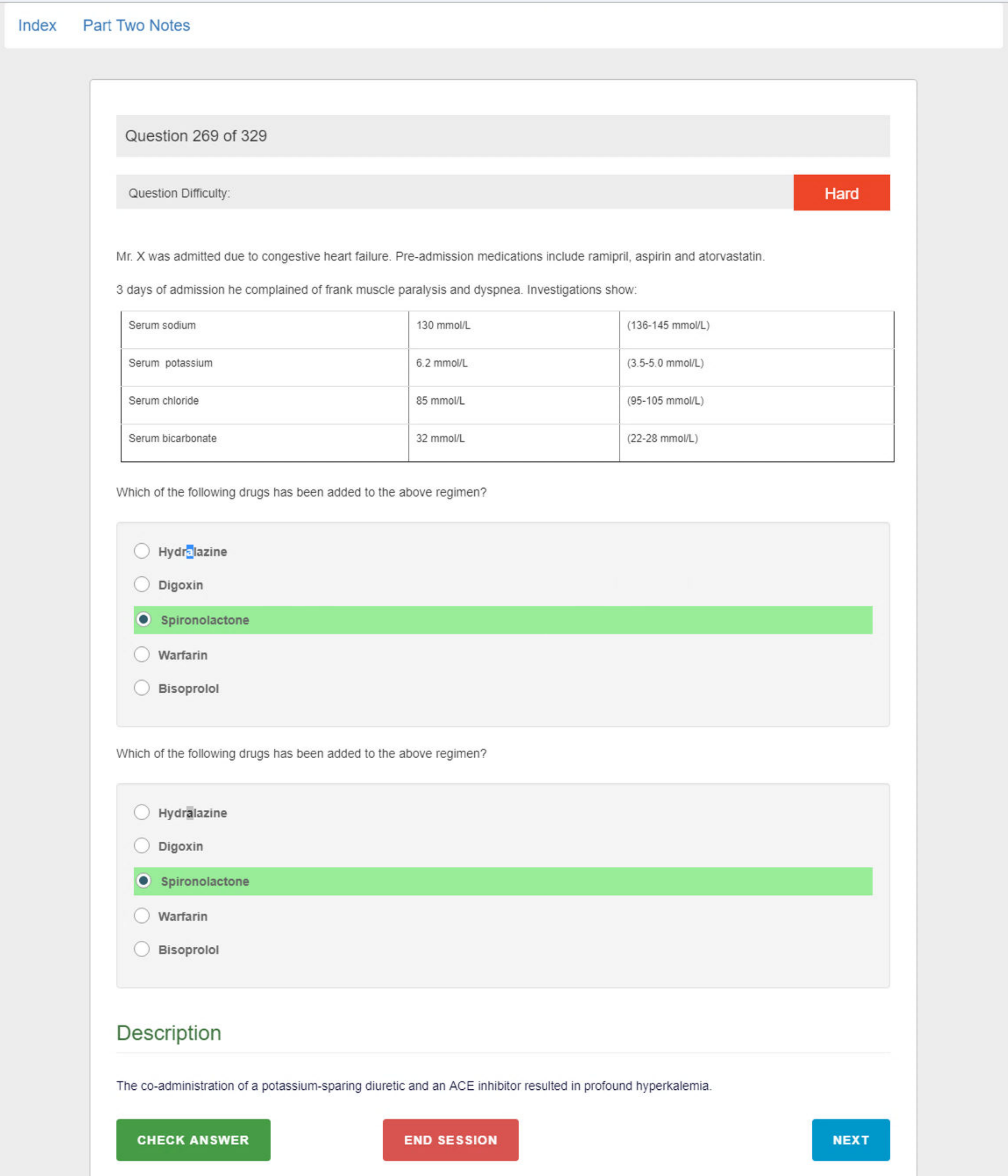
## Description

Alcohol withdrawal syndrome is a set of symptoms that can occur when an individual reduces or stops alcoholic consumption after long periods of use.

Alcohol hallucinosis (auditory or visual) occurs within 24 hours of cessation. Withdrawal seizures occur within 48 hours. Delirium tremens occurs within 72 hours; it is manifested by psychomotor agitation and autonomic instability.

## Session Statistics

Answered: 267
✓ Correct: 59
× Incorrect: 208
Average Score: 22.1 %



Question 269 of 329

Question Difficulty: Hard

Mr. X was admitted due to congestive heart failure. Pre-admission medications include ramipril, aspirin and atorvastatin.

3 days of admission he complained of frank muscle paralysis and dyspnea. Investigations show:

| | | |
|---|---|---|
| Serum sodium | 130 mmol/L | (136-145 mmol/L) |
| Serum potassium | 6.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum chloride | 85 mmol/L | (95-105 mmol/L) |
| Serum bicarbonate | 32 mmol/L | (22-28 mmol/L) |

Which of the following drugs has been added to the above regimen?

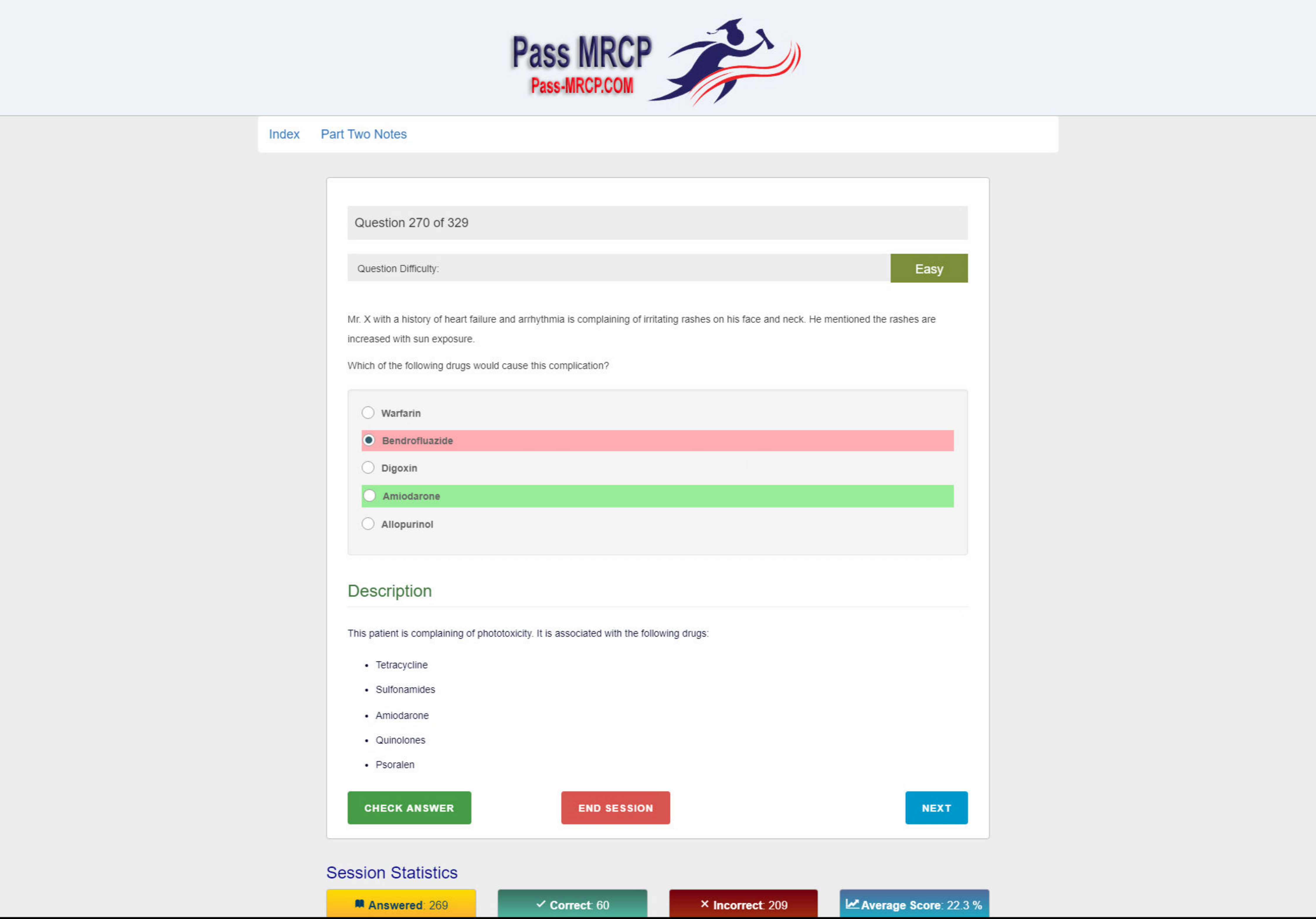
- ○ **Hydralazine**
- ○ **Digoxin**
- ● **Spironolactone**
- ○ **Warfarin**
- ○ **Bisoprolol**

Which of the following drugs has been added to the above regimen?

- ○ **Hydralazine**
- ○ **Digoxin**
- ● **Spironolactone**
- ○ **Warfarin**
- ○ **Bisoprolol**

## Description

The co-administration of a potassium-sparing diuretic and an ACE inhibitor resulted in profound hyperkalemia.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Question 270 of 329

Question Difficulty: **Easy**

Mr. X with a history of heart failure and arrhythmia is complaining of irritating rashes on his face and neck. He mentioned the rashes are increased with sun exposure.

Which of the following drugs would cause this complication?

○ **Warfarin**
● **Bendrofluazide**
○ **Digoxin**
○ **Amiodarone**
○ **Allopurinol**

## Description

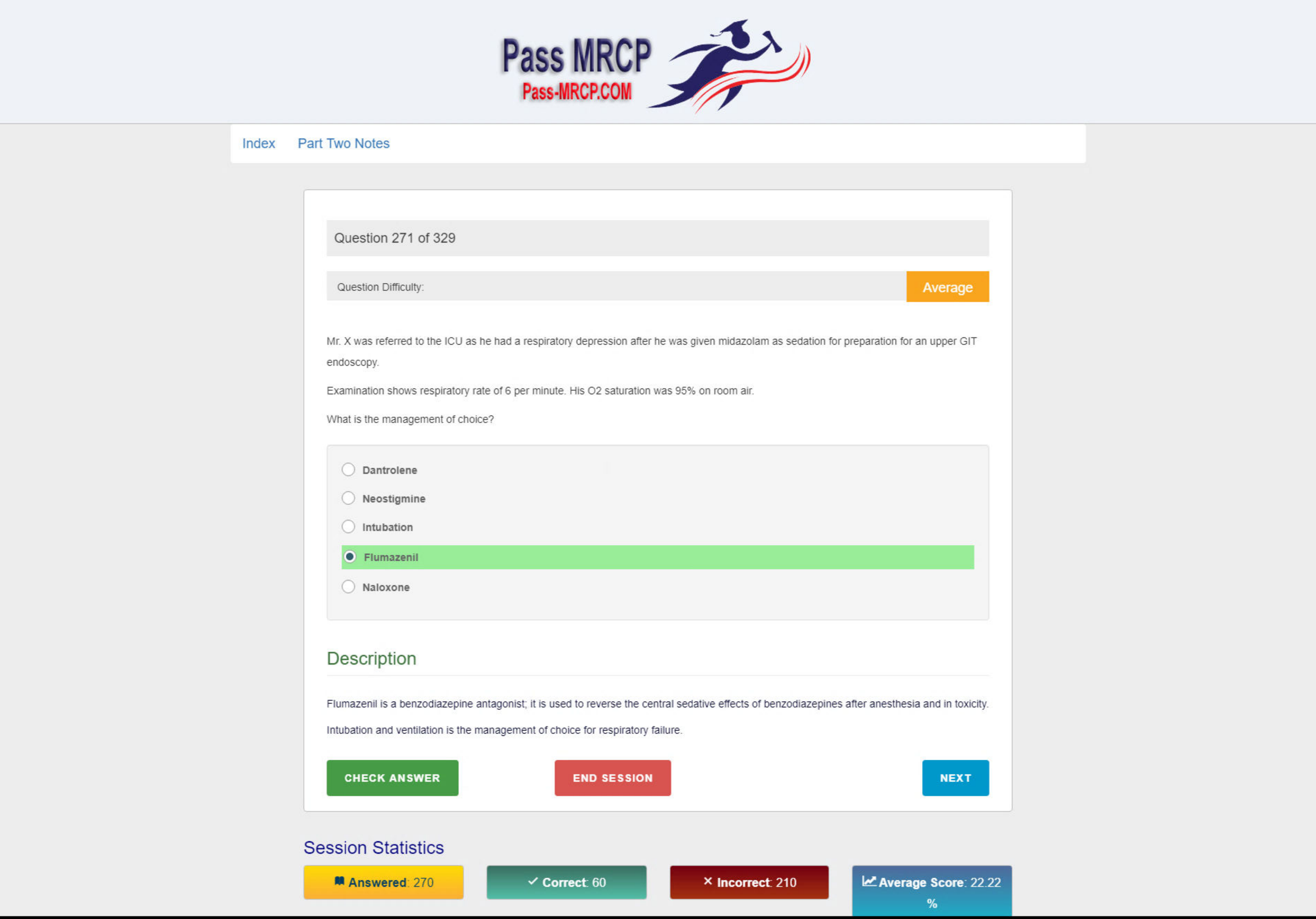
This patient is complaining of phototoxicity. It is associated with the following drugs:

- Tetracycline
- Sulfonamides
- Amiodarone
- Quinolones
- Psoralen

CHECK ANSWER
END SESSION
NEXT

Session Statistics

**Answered**: 269
**Correct**: 60
**Incorrect**: 209
**Average Score**: 22.3 %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Question 271 of 329

Question Difficulty: Average

Mr. X was referred to the ICU as he had a respiratory depression after he was given midazolam as sedation for preparation for an upper GIT endoscopy.

Examination shows respiratory rate of 6 per minute. His O2 saturation was 95% on room air.

What is the management of choice?

- ○ Dantrolene
- ○ Neostigmine
- ○ Intubation
- ● Flumazenil
- ○ Naloxone

## Description

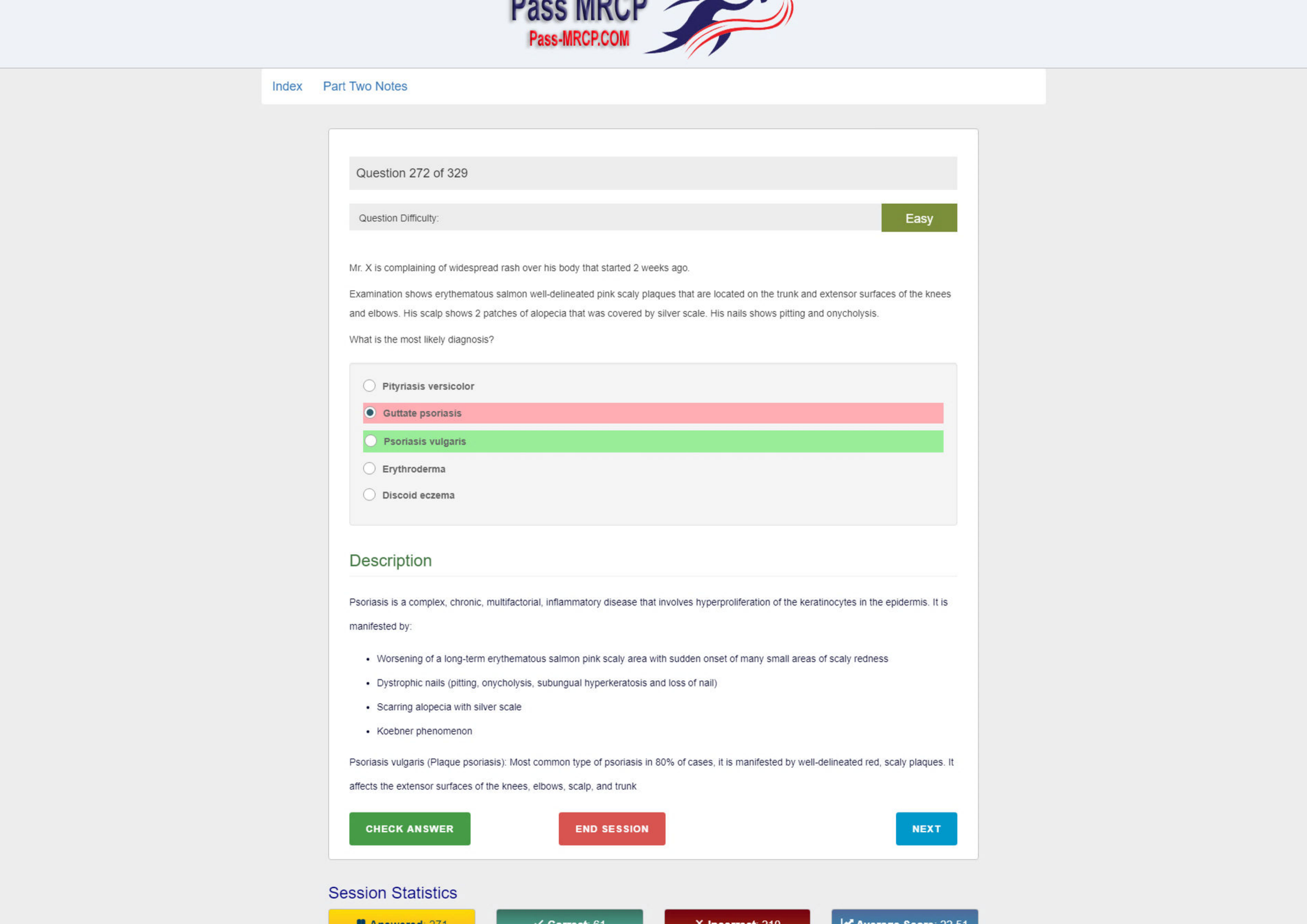
Flumazenil is a benzodiazepine antagonist; it is used to reverse the central sedative effects of benzodiazepines after anesthesia and in toxicity.

Intubation and ventilation is the management of choice for respiratory failure.

CHECK ANSWER
END SESSION
NEXT

Session Statistics

Answered: 270
✓ Correct: 60
✕ Incorrect: 210
Average Score: 22.22 %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Question 272 of 329

Question Difficulty: Easy

Mr. X is complaining of widespread rash over his body that started 2 weeks ago.

Examination shows erythematous salmon well-delineated pink scaly plaques that are located on the trunk and extensor surfaces of the knees and elbows. His scalp shows 2 patches of alopecia that was covered by silver scale. His nails shows pitting and onycholysis.

What is the most likely diagnosis?

○ **Pityriasis versicolor**
● **Guttate psoriasis**
○ **Psoriasis vulgaris**
○ **Erythroderma**
○ **Discoid eczema**

## Description

Psoriasis is a complex, chronic, multifactorial, inflammatory disease that involves hyperproliferation of the keratinocytes in the epidermis. It is manifested by:

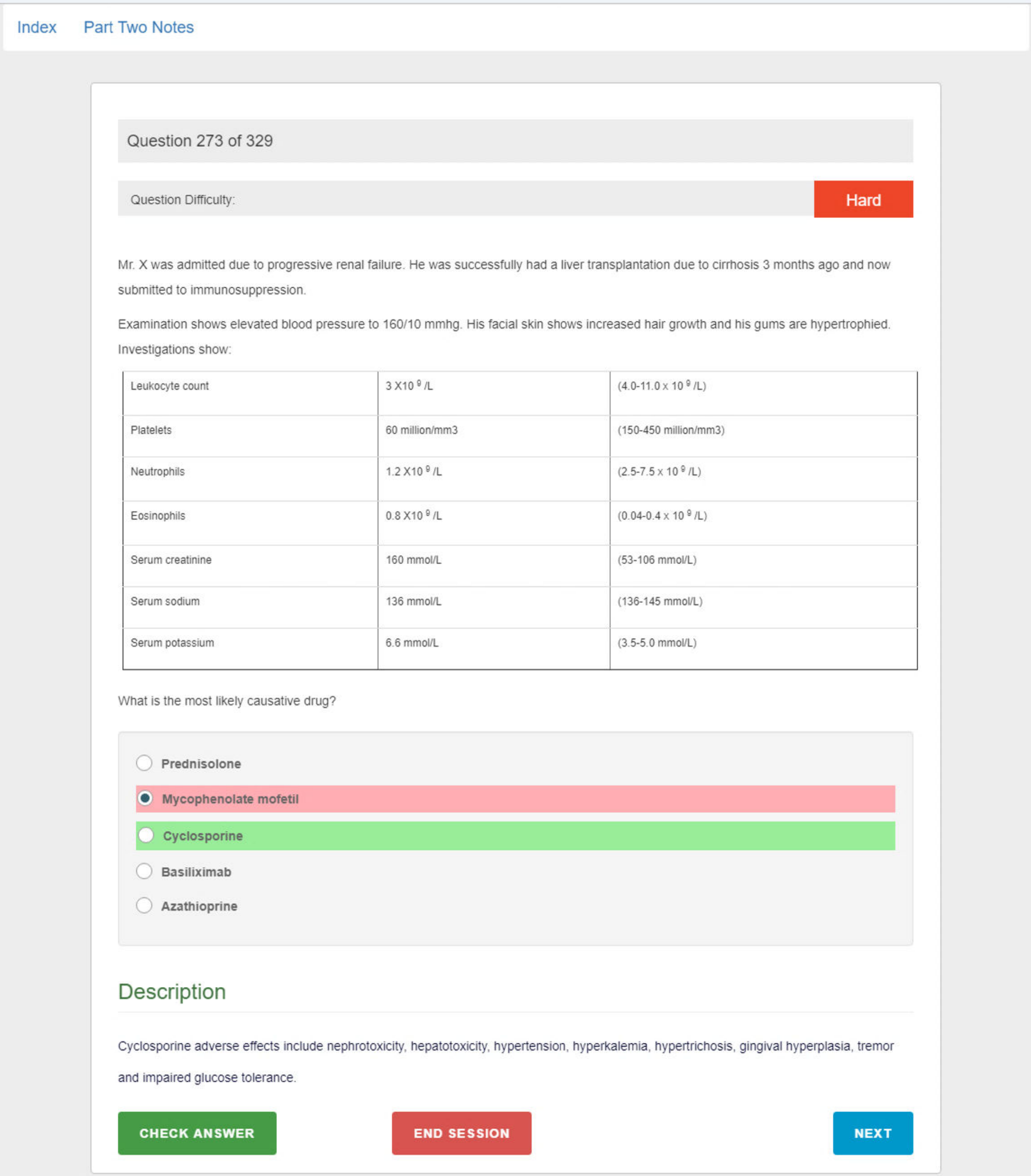
- Worsening of a long-term erythematous salmon pink scaly area with sudden onset of many small areas of scaly redness
- Dystrophic nails (pitting, onycholysis, subungual hyperkeratosis and loss of nail)
- Scarring alopecia with silver scale
- Koebner phenomenon

Psoriasis vulgaris (Plaque psoriasis): Most common type of psoriasis in 80% of cases, it is manifested by well-delineated red, scaly plaques. It affects the extensor surfaces of the knees, elbows, scalp, and trunk

CHECK ANSWER
END SESSION
NEXT

Session Statistics

Answered: 271
✓ Correct: 61
X Incorrect: 210
Average Score: 22.51



Question 273 of 329

Question Difficulty: **Hard**

Mr. X was admitted due to progressive renal failure. He was successfully had a liver transplantation due to cirrhosis 3 months ago and now submitted to immunosuppression.

Examination shows elevated blood pressure to 160/10 mmhg. His facial skin shows increased hair growth and his gums are hypertrophied.

Investigations show:

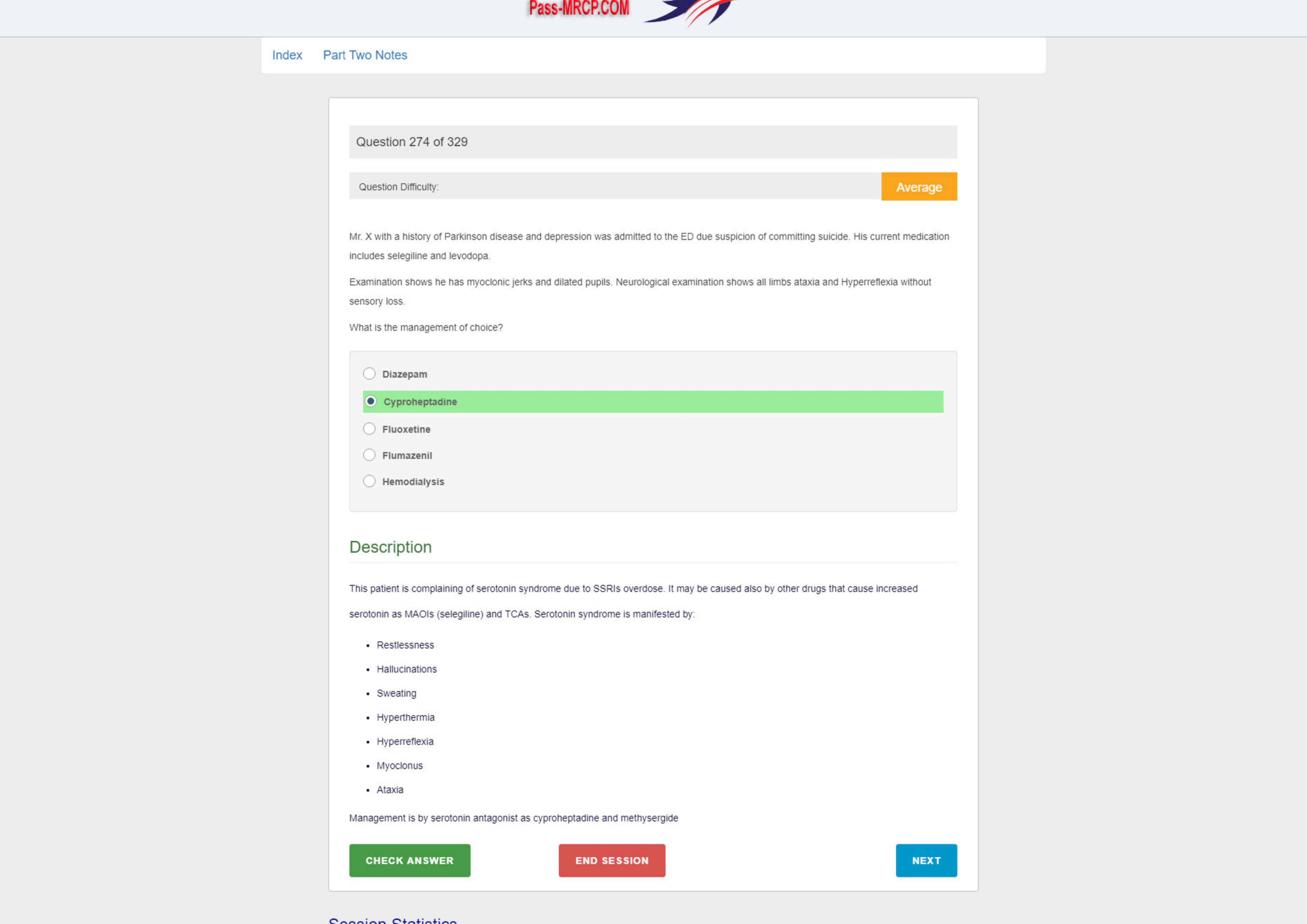
| | | |
|---|---|---|
| Leukocyte count | 3 X10 $^{9}$ /L | (4.0-11.0 x 10 $^{9}$ /L) |
| Platelets | 60 million/mm3 | (150-450 million/mm3) |
| Neutrophils | 1.2 X10 $^{9}$ /L | (2.5-7.5 x 10 $^{9}$ /L) |
| Eosinophils | 0.8 X10 $^{9}$ /L | (0.04-0.4 x 10 $^{9}$ /L) |
| Serum creatinine | 160 mmol/L | (53-106 mmol/L) |
| Serum sodium | 136 mmol/L | (136-145 mmol/L) |
| Serum potassium | 6.6 mmol/L | (3.5-5.0 mmol/L) |

What is the most likely causative drug?

- ○ **Prednisolone**
- ● **Mycophenolate mofetil**
- ○ **Cyclosporine**
- ○ **Basiliximab**
- ○ **Azathioprine**

## Description

Cyclosporine adverse effects include nephrotoxicity, hepatotoxicity, hypertension, hyperkalemia, hypertrichosis, gingival hyperplasia, tremor and impaired glucose tolerance.



Question 274 of 329

Question Difficulty: Average

Mr. X with a history of Parkinson disease and depression was admitted to the ED due suspicion of committing suicide. His current medication includes selegiline and levodopa.

Examination shows he has myoclonic jerks and dilated pupils. Neurological examination shows all limbs ataxia and Hyperreflexia without sensory loss.

What is the management of choice?

○ **Diazepam**
● **Cyproheptadine**
○ **Fluoxetine**
○ **Flumazenil**
○ **Hemodialysis**

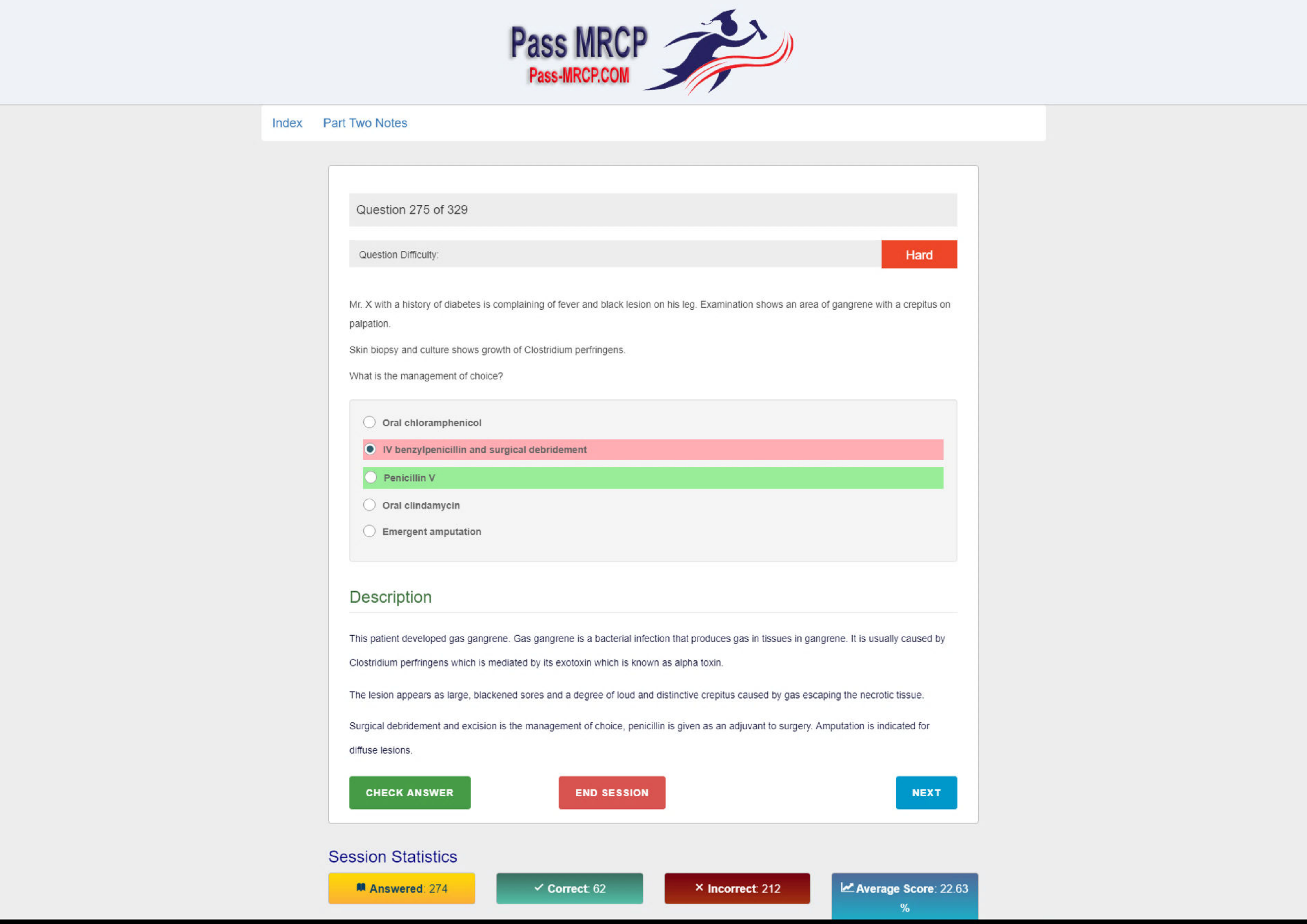
## Description

This patient is complaining of serotonin syndrome due to SSRIs overdose. It may be caused also by other drugs that cause increased serotonin as MAOIs (selegiline) and TCAs. Serotonin syndrome is manifested by:

- Restlessness
- Hallucinations
- Sweating
- Hyperthermia
- Hyperreflexia
- Myoclonus
- Ataxia

Management is by serotonin antagonist as cyproheptadine and methysergide

Session Statistics



Question 275 of 329

Question Difficulty: Hard

Mr. X with a history of diabetes is complaining of fever and black lesion on his leg. Examination shows an area of gangrene with a crepitus on palpation.

Skin biopsy and culture shows growth of Clostridium perfringens.

What is the management of choice?

- ○ Oral chloramphenicol
- ● IV benzylpenicillin and surgical debridement
- ○ Penicillin V
- ○ Oral clindamycin
- ○ Emergent amputation

## Description

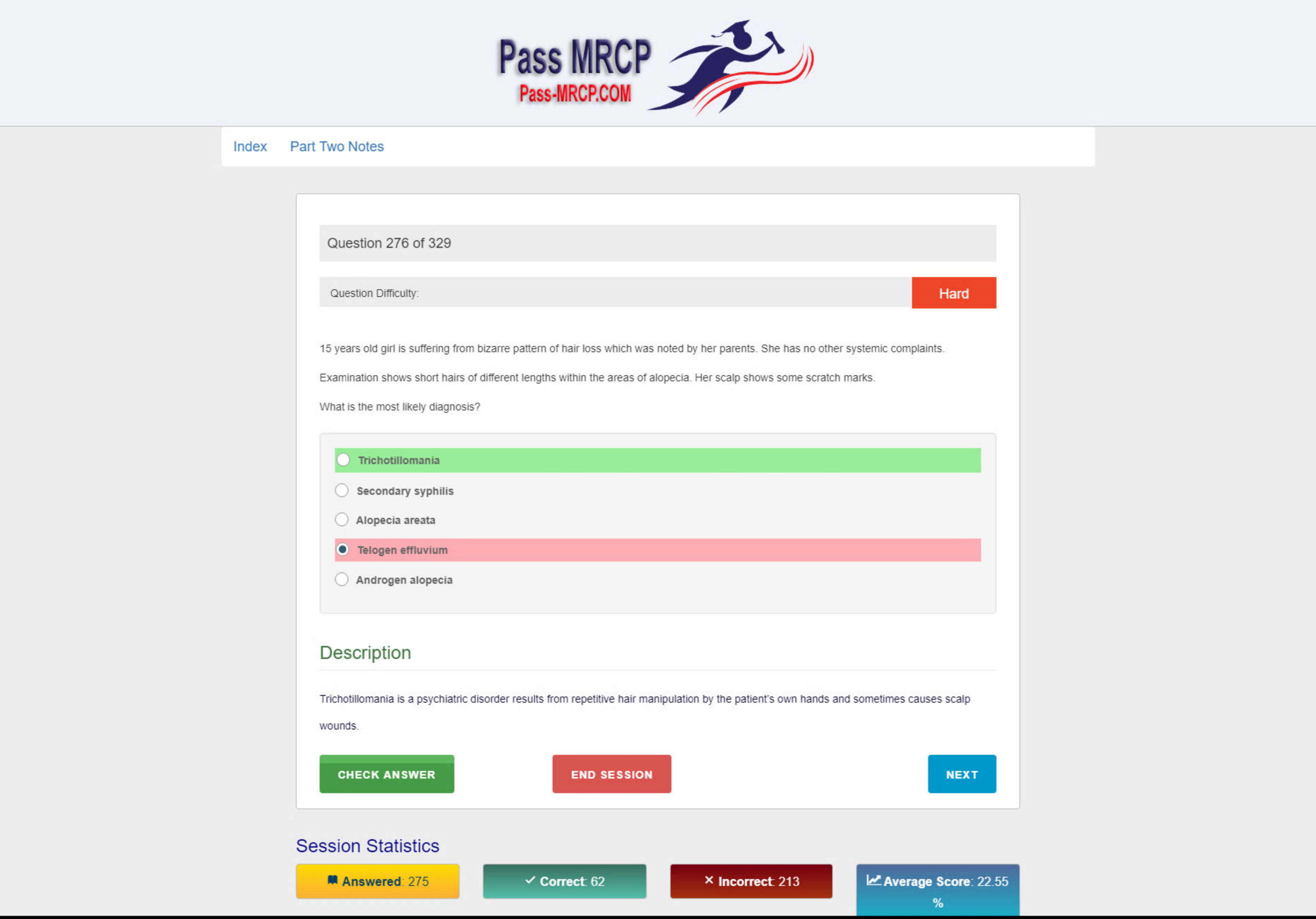
This patient developed gas gangrene. Gas gangrene is a bacterial infection that produces gas in tissues in gangrene. It is usually caused by Clostridium perfringens which is mediated by its exotoxin which is known as alpha toxin.

The lesion appears as large, blackened sores and a degree of loud and distinctive crepitus caused by gas escaping the necrotic tissue.

Surgical debridement and excision is the management of choice, penicillin is given as an adjuvant to surgery. Amputation is indicated for diffuse lesions.

## Session Statistics

Answered: 274
✓ Correct: 62
✕ Incorrect: 212
Average Score: 22.63 %



Question 276 of 329

Question Difficulty: Hard

15 years old girl is suffering from bizarre pattern of hair loss which was noted by her parents. She has no other systemic complaints.

Examination shows short hairs of different lengths within the areas of alopecia. Her scalp shows some scratch marks.

What is the most likely diagnosis?

- ○ **Trichotillomania**
- ○ **Secondary syphilis**
- ○ **Alopecia areata**
- ● **Telogen effluvium**
- ○ **Androgen alopecia**

## Description

Trichotillomania is a psychiatric disorder results from repetitive hair manipulation by the patient's own hands and sometimes causes scalp wounds.

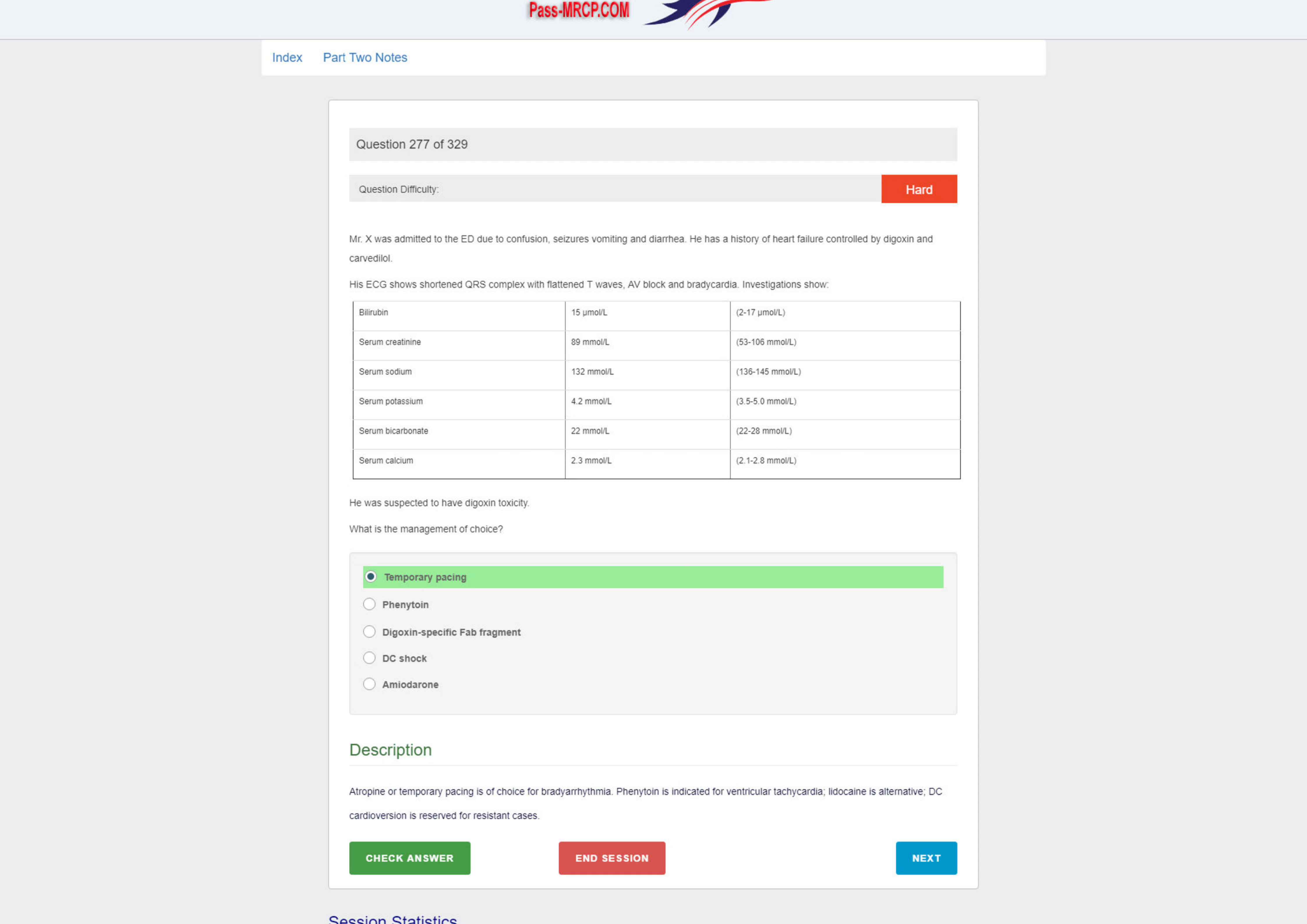
## Session Statistics

**Answered**: 275

✓ **Correct**: 62

✕ **Incorrect**: 213

**Average Score**: 22.55 %



Question 277 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED due to confusion, seizures vomiting and diarrhea. He has a history of heart failure controlled by digoxin and carvedilol.

His ECG shows shortened QRS complex with flattened T waves, AV block and bradycardia. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 µmol/L | (2-17 µmol/L) |
| Serum creatinine | 89 mmol/L | (53-106 mmol/L) |
| Serum sodium | 132 mmol/L | (136-145 mmol/L) |
| Serum potassium | 4.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 22 mmol/L | (22-28 mmol/L) |
| Serum calcium | 2.3 mmol/L | (2.1-2.8 mmol/L) |

He was suspected to have digoxin toxicity.

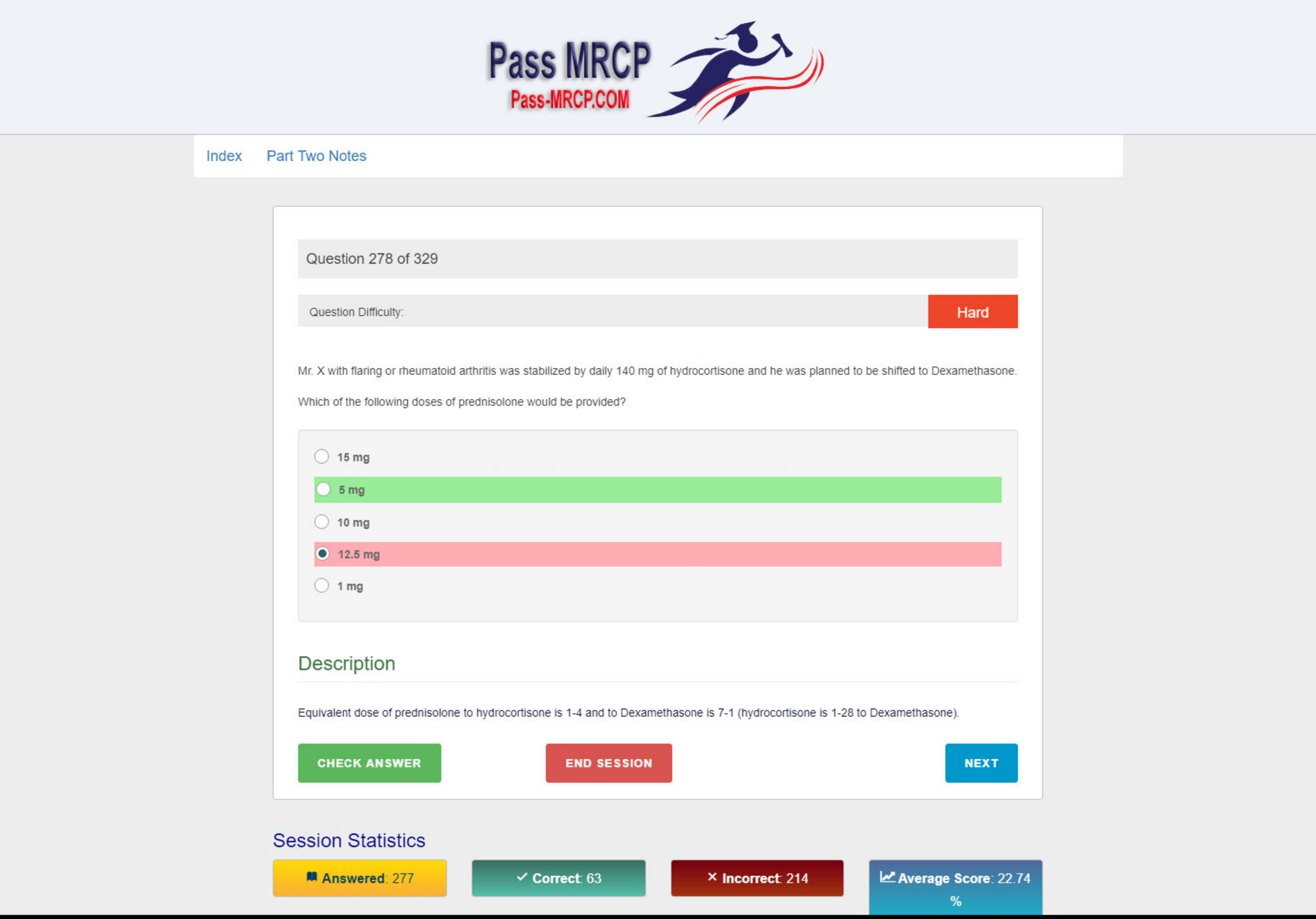
What is the management of choice?

- ● **Temporary pacing**
- ○ **Phenytoin**
- ○ **Digoxin-specific Fab fragment**
- ○ **DC shock**
- ○ **Amiodarone**

## Description

Atropine or temporary pacing is of choice for bradyarrhythmia. Phenytoin is indicated for ventricular tachycardia; lidocaine is alternative; DC cardioversion is reserved for resistant cases.

Session Statistics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Question 278 of 329

Question Difficulty: Hard

Mr. X with flaring or rheumatoid arthritis was stabilized by daily 140 mg of hydrocortisone and he was planned to be shifted to Dexamethasone.

Which of the following doses of prednisolone would be provided?

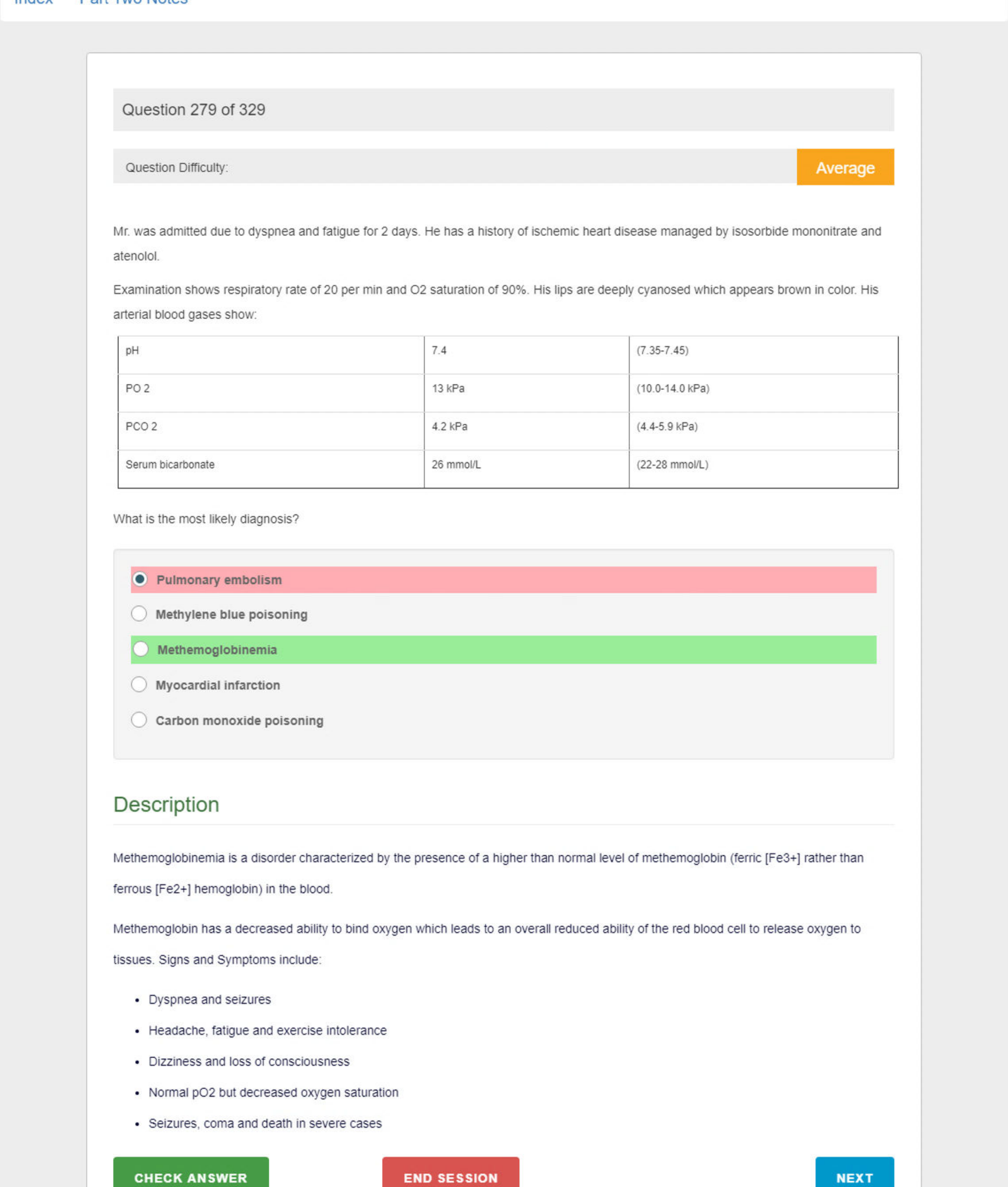
○ 15 mg
○ 5 mg
○ 10 mg
● 12.5 mg
○ 1 mg

## Description

Equivalent dose of prednisolone to hydrocortisone is 1-4 and to Dexamethasone is 7-1 (hydrocortisone is 1-28 to Dexamethasone).

## Session Statistics

**Answered**: 277
✓ **Correct**: 63
✕ **Incorrect**: 214
**Average Score**: 22.74 %



## Question 279 of 329

Mr. was admitted due to dyspnea and fatigue for 2 days. He has a history of ischemic heart disease managed by isosorbide mononitrate and atenolol.

Examination shows respiratory rate of 20 per min and O2 saturation of 90%. His lips are deeply cyanosed which appears brown in color. His arterial blood gases show:

| | | |
|---|---|---|
| pH | 7.4 | (7.35-7.45) |
| PO 2 | 13 kPa | (10.0-14.0 kPa) |
| PCO 2 | 4.2 kPa | (4.4-5.9 kPa) |
| Serum bicarbonate | 26 mmol/L | (22-28 mmol/L) |

What is the most likely diagnosis?

● **Pulmonary embolism**
○ **Methylene blue poisoning**
○ **Methemoglobinemia**
○ **Myocardial infarction**
○ **Carbon monoxide poisoning**

## Description

Methemoglobinemia is a disorder characterized by the presence of a higher than normal level of methemoglobin (ferric [Fe3+] rather than ferrous [Fe2+] hemoglobin) in the blood.

Methemoglobin has a decreased ability to bind oxygen which leads to an overall reduced ability of the red blood cell to release oxygen to tissues. Signs and Symptoms include:

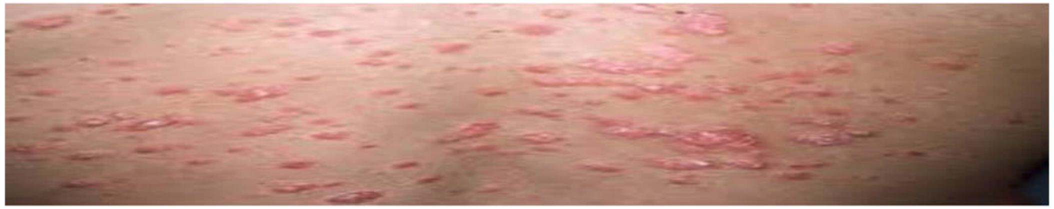
- Dyspnea and seizures
- Headache, fatigue and exercise intolerance
- Dizziness and loss of consciousness
- Normal pO2 but decreased oxygen saturation
- Seizures, coma and death in severe cases

Question 280 of 329

Question Difficulty: Easy

Mr. X is complaining of itching rashes for 4 days. He reported a long history of type 2 diabetes and a recent history of follicular tonsillitis 2 weeks ago.

Examination shows several tiny salmon pink scaly papules spreading over the back of the trunk with the largest measuring 4 mm in diameter as in the image. The rashes also appear on a central abdominal scar of an exploration operation.



What is the most likely diagnosis?

○ **Guttate psoriasis**

● **Pustular psoriasis**

○ **Pityriasis versicolor**

○ **Psoriasis vulgaris**

○ **Discoid eczema**

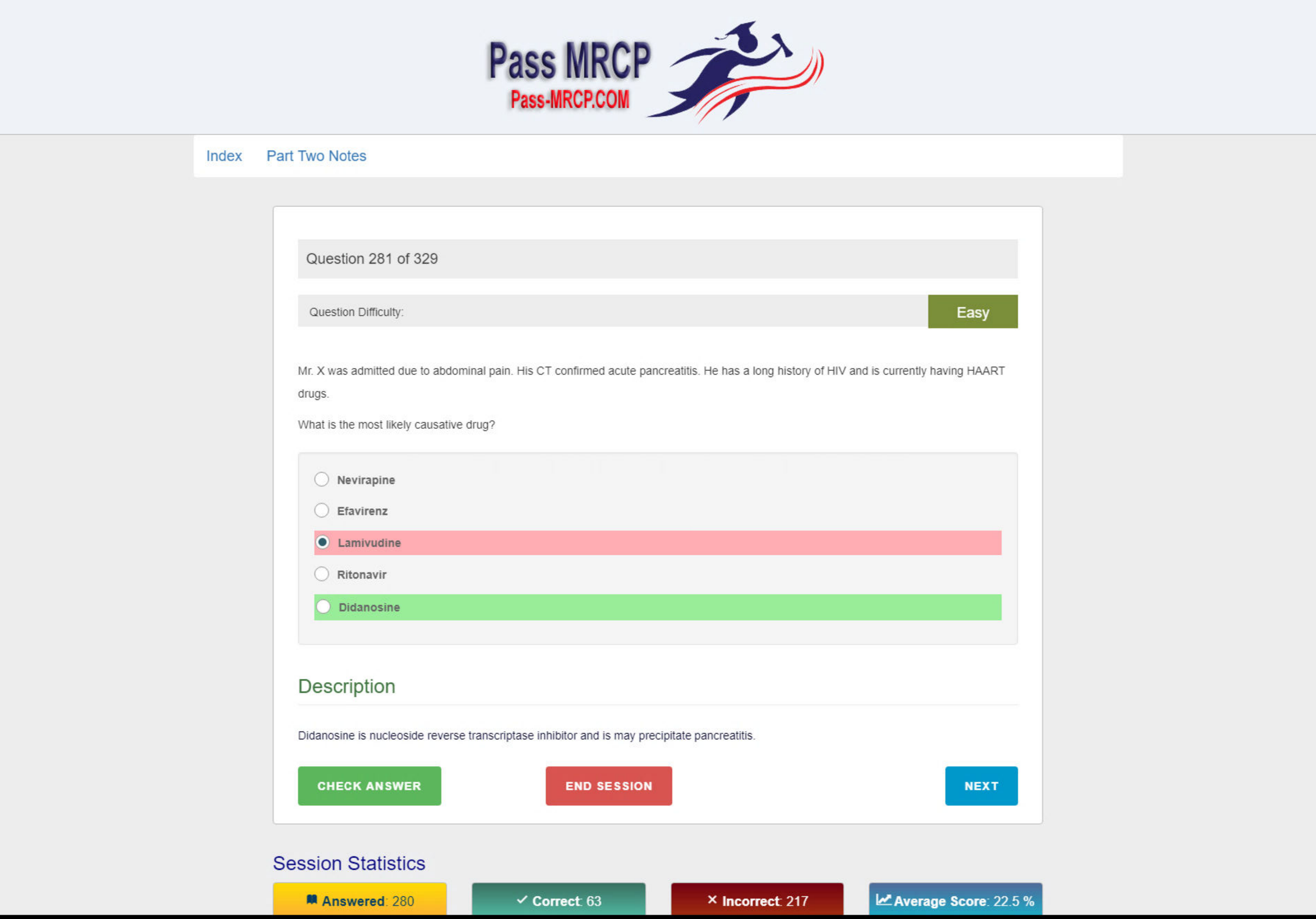
## Description

Psoriasis is a complex, chronic, multifactorial, inflammatory disease that involves hyperproliferation of the keratinocytes in the epidermis. It is manifested by:

- Worsening of a long-term erythematous salmon pink scaly area with sudden onset of many small areas of scaly redness
- Dystrophic nails (pitting, onycholysis, subungual hyperkeratosis and loss of nail)
- Scarring alopecia with silver scale
- Koebner phenomenon

Guttate psoriasis is manifested by small rain drop rashes predominantly on the trunk; frequently appear 2-3 weeks after an upper respiratory infection with group A beta-hemolytic streptococci.

CHECK ANSWER END SESSION NEXT



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Question 281 of 329

Question Difficulty: Easy

Mr. X was admitted due to abdominal pain. His CT confirmed acute pancreatitis. He has a long history of HIV and is currently having HAART drugs.

What is the most likely causative drug?

- ○ **Nevirapine**
- ○ **Efavirenz**
- ● **Lamivudine**
- ○ **Ritonavir**
- ○ **Didanosine**

## Description

Didanosine is nucleoside reverse transcriptase inhibitor and is may precipitate pancreatitis.

CHECK ANSWER
END SESSION
NEXT

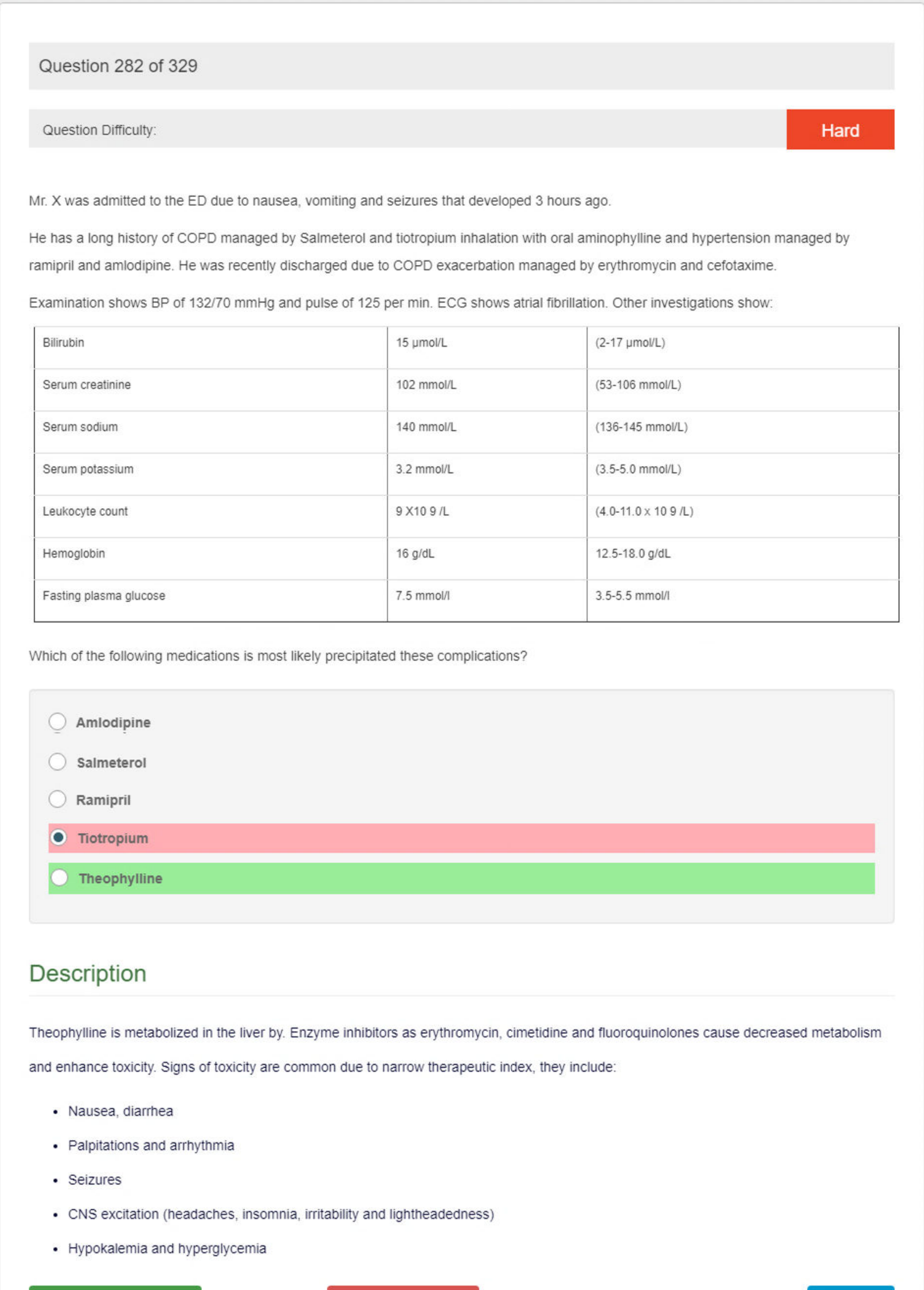
## Session Statistics

**Answered**: 280

✓ **Correct**: 63

✕ **Incorrect**: 217

**Average Score**: 22.5 %



Question 282 of 329

Question Difficulty: **Hard**

Mr. X was admitted to the ED due to nausea, vomiting and seizures that developed 3 hours ago.

He has a long history of COPD managed by Salmeterol and tiotropium inhalation with oral aminophylline and hypertension managed by ramipril and amlodipine. He was recently discharged due to COPD exacerbation managed by erythromycin and cefotaxime.

Examination shows BP of 132/70 mmHg and pulse of 125 per min. ECG shows atrial fibrillation. Other investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 µmol/L | (2-17 µmol/L) |
| Serum creatinine | 102 mmol/L | (53-106 mmol/L) |
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3.2 mmol/L | (3.5-5.0 mmol/L) |
| Leukocyte count | 9 X10 9 /L | (4.0-11.0 x 10 9 /L) |
| Hemoglobin | 16 g/dL | 12.5-18.0 g/dL |
| Fasting plasma glucose | 7.5 mmol/l | 3.5-5.5 mmol/l |

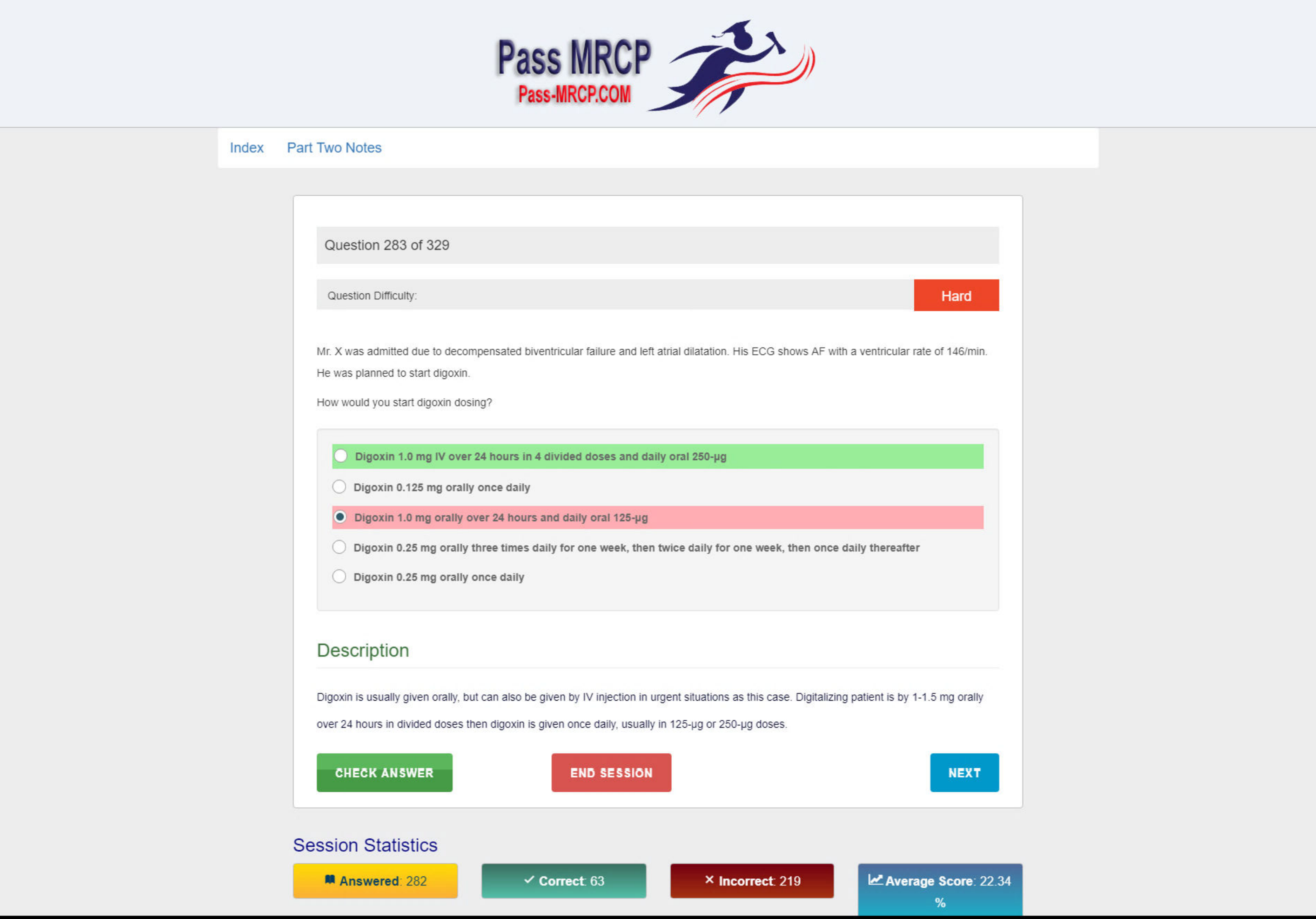
Which of the following medications is most likely precipitated these complications?

○ **Amlodipine**
○ **Salmeterol**
○ **Ramipril**
● **Tiotropium**
○ **Theophylline**

## Description

Theophylline is metabolized in the liver by. Enzyme inhibitors as erythromycin, cimetidine and fluoroquinolones cause decreased metabolism and enhance toxicity. Signs of toxicity are common due to narrow therapeutic index, they include:

- Nausea, diarrhea
- Palpitations and arrhythmia
- Seizures
- CNS excitation (headaches, insomnia, irritability and lightheadedness)
- Hypokalemia and hyperglycemia



Question 283 of 329

Question Difficulty: **Hard**

Mr. X was admitted due to decompensated biventricular failure and left atrial dilatation. His ECG shows AF with a ventricular rate of 146/min. He was planned to start digoxin.

How would you start digoxin dosing?

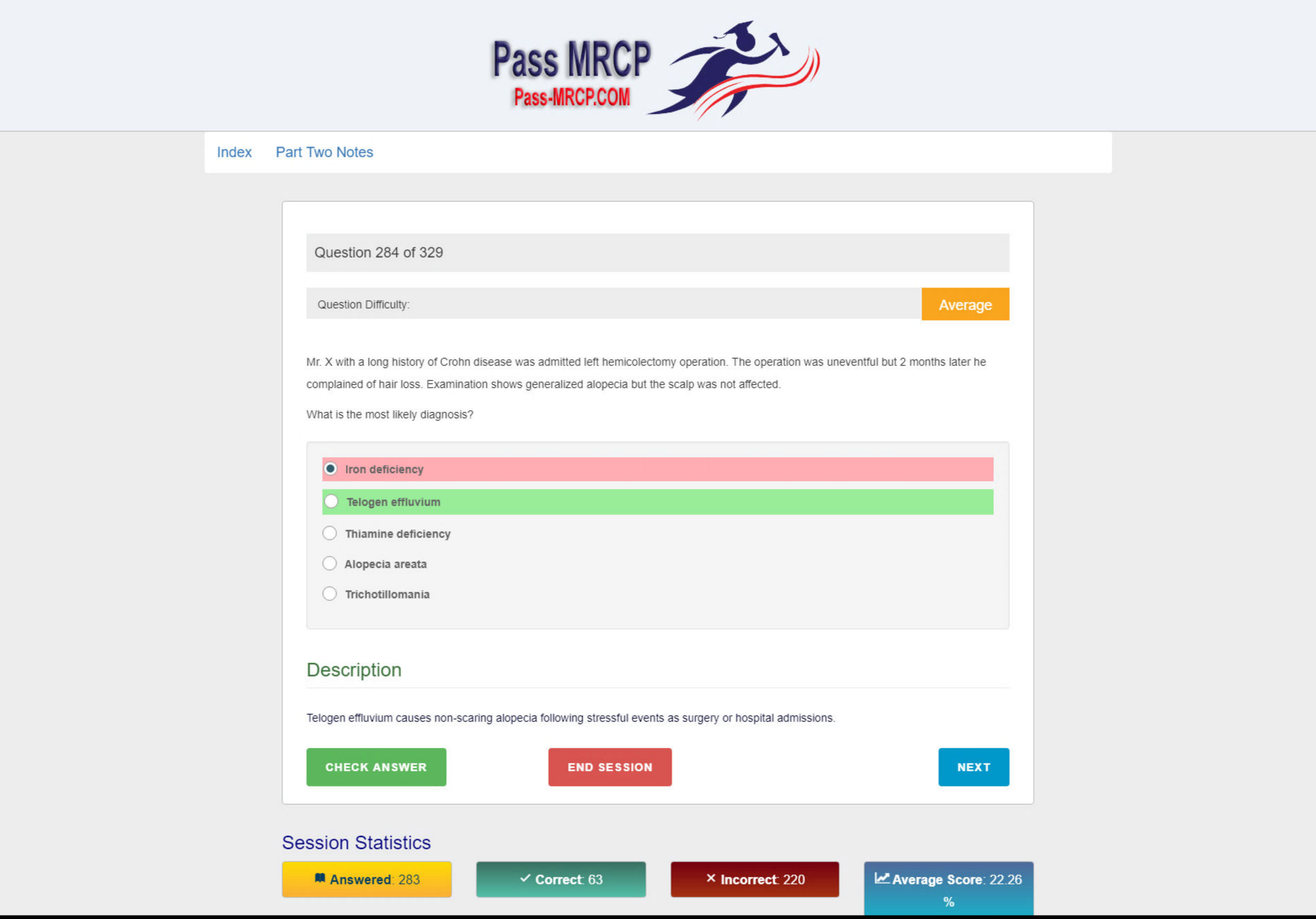
- ○ **Digoxin 1.0 mg IV over 24 hours in 4 divided doses and daily oral 250-μg**
- ○ **Digoxin 0.125 mg orally once daily**
- ● **Digoxin 1.0 mg orally over 24 hours and daily oral 125-μg**
- ○ **Digoxin 0.25 mg orally three times daily for one week, then twice daily for one week, then once daily thereafter**
- ○ **Digoxin 0.25 mg orally once daily**

## Description

Digoxin is usually given orally, but can also be given by IV injection in urgent situations as this case. Digitalizing patient is by 1-1.5 mg orally over 24 hours in divided doses then digoxin is given once daily, usually in 125-μg or 250-μg doses.

Session Statistics

**Answered**: 282
✓ **Correct**: 63
✕ **Incorrect**: 219
**Average Score**: 22.34 %



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Question Difficulty: Average

Mr. X with a long history of Crohn disease was admitted left hemicolectomy operation. The operation was uneventful but 2 months later he complained of hair loss. Examination shows generalized alopecia but the scalp was not affected.

What is the most likely diagnosis?

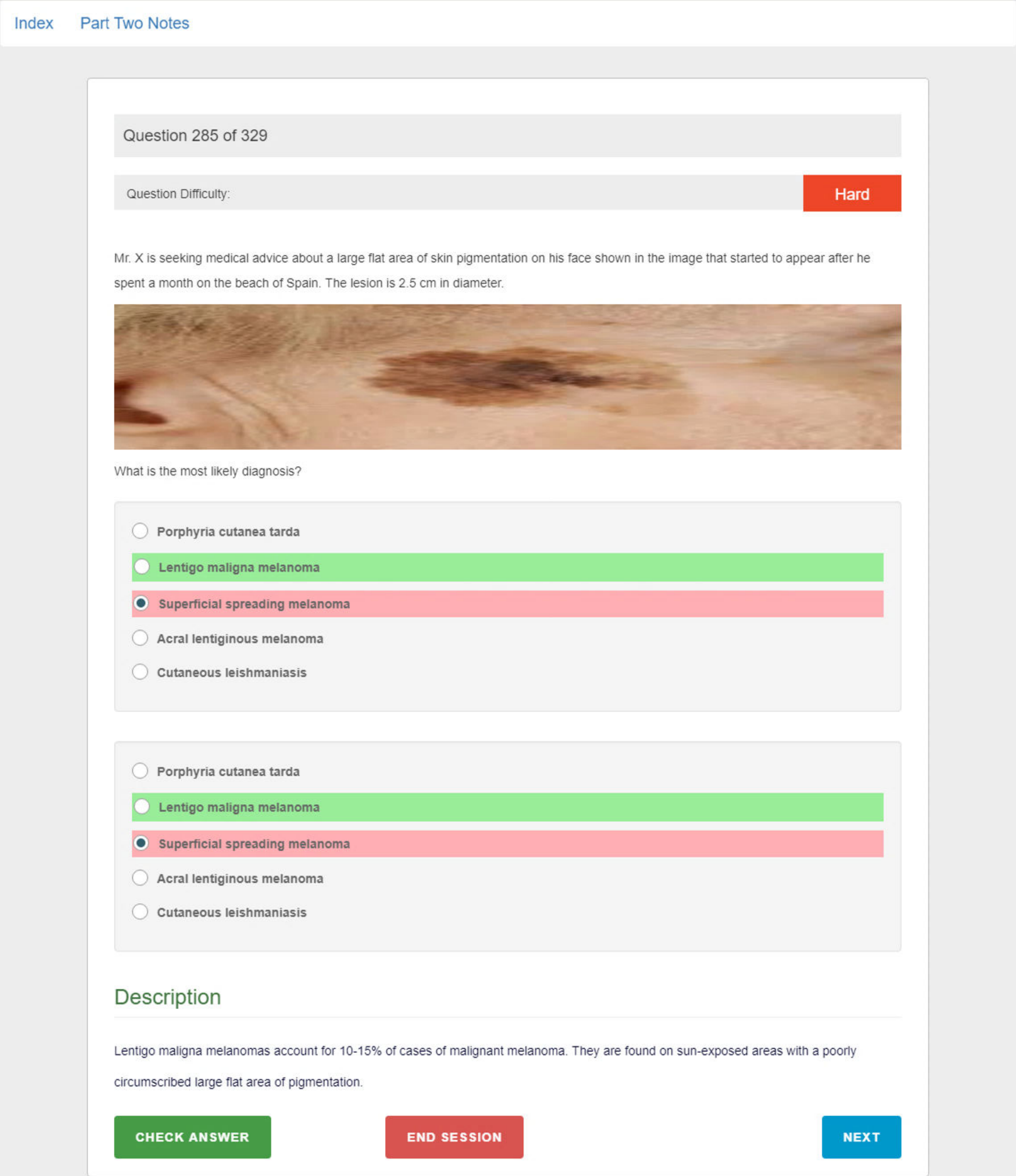
- ● Iron deficiency
- ○ Telogen effluvium
- ○ Thiamine deficiency
- ○ Alopecia areata
- ○ Trichotillomania

## Description

Telogen effluvium causes non-scaring alopecia following stressful events as surgery or hospital admissions.

## Session Statistics

Answered: 283
✓ Correct: 63
✕ Incorrect: 220
Average Score: 22.26 %



Question 285 of 329

Question Difficulty: Hard

Mr. X is seeking medical advice about a large flat area of skin pigmentation on his face shown in the image that started to appear after he spent a month on the beach of Spain. The lesion is 2.5 cm in diameter.

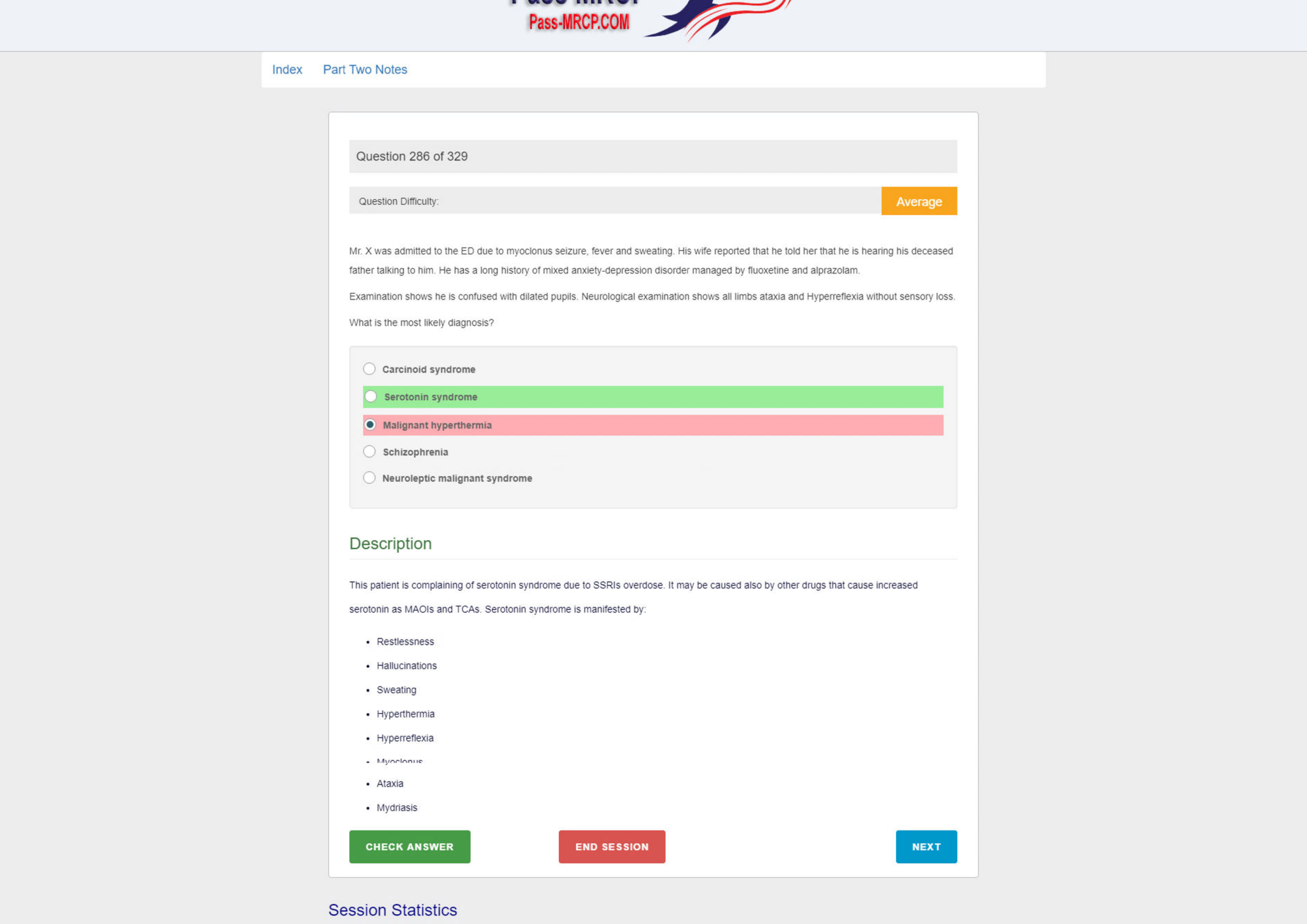
What is the most likely diagnosis?

- ○ Porphyria cutanea tarda
- ○ Lentigo maligna melanoma
- ● Superficial spreading melanoma
- ○ Acral lentiginous melanoma
- ○ Cutaneous leishmaniasis

- ○ Porphyria cutanea tarda
- ○ Lentigo maligna melanoma
- ● Superficial spreading melanoma
- ○ Acral lentiginous melanoma
- ○ Cutaneous leishmaniasis

## Description

Lentigo maligna melanomas account for 10-15% of cases of malignant melanoma. They are found on sun-exposed areas with a poorly circumscribed large flat area of pigmentation.



Question 286 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to myoclonus seizure, fever and sweating. His wife reported that he told her that he is hearing his deceased father talking to him. He has a long history of mixed anxiety-depression disorder managed by fluoxetine and alprazolam.

Examination shows he is confused with dilated pupils. Neurological examination shows all limbs ataxia and Hyperreflexia without sensory loss.

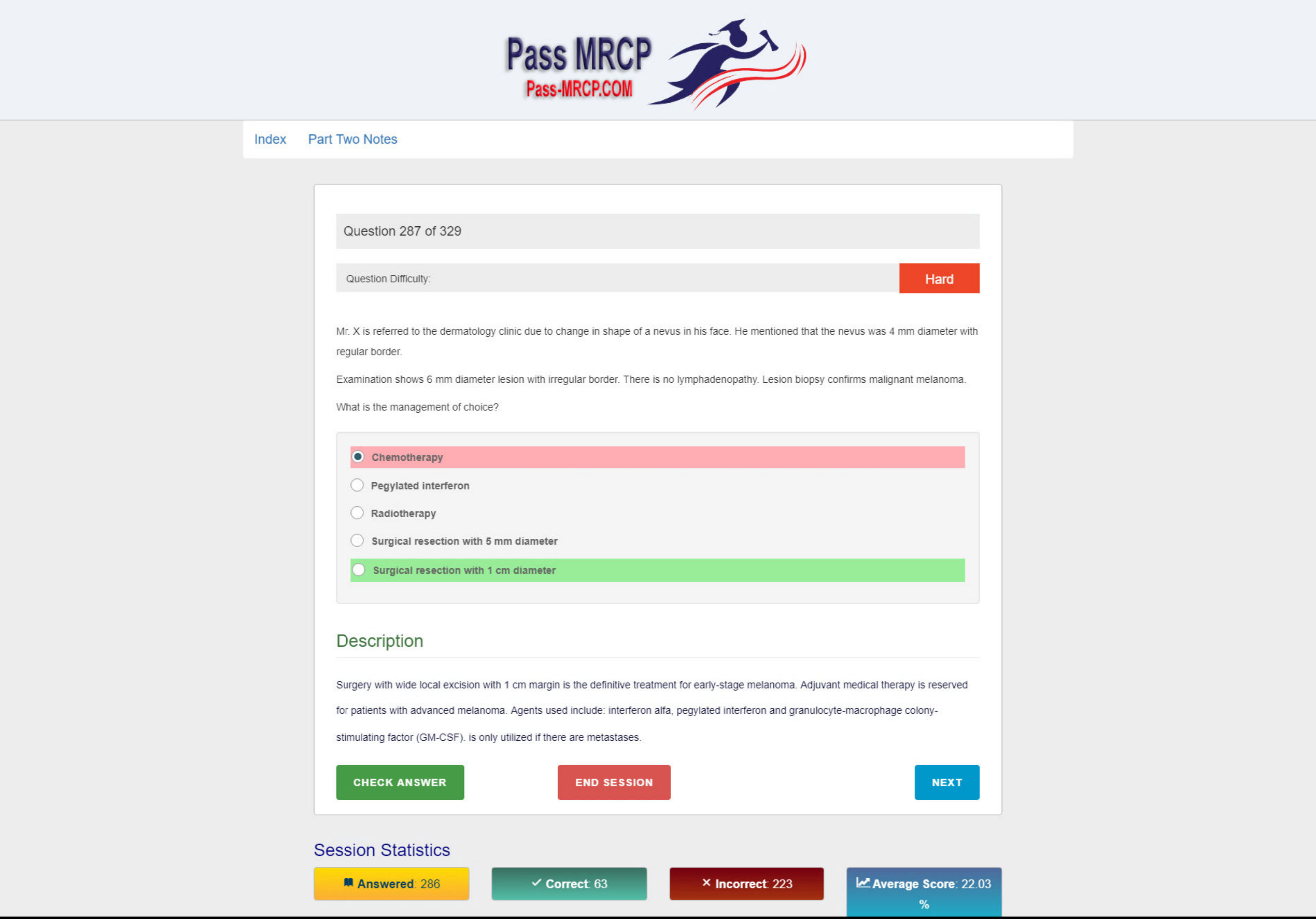
What is the most likely diagnosis?

○ Carcinoid syndrome
○ Serotonin syndrome
● Malignant hyperthermia
○ Schizophrenia
○ Neuroleptic malignant syndrome

## Description

This patient is complaining of serotonin syndrome due to SSRIs overdose. It may be caused also by other drugs that cause increased serotonin as MAOIs and TCAs. Serotonin syndrome is manifested by:

- Restlessness
- Hallucinations
- Sweating
- Hyperthermia
- Hyperreflexia
- Myoclonus
- Ataxia
- Mydriasis



Question 287 of 329

Question Difficulty: **Hard**

Mr. X is referred to the dermatology clinic due to change in shape of a nevus in his face. He mentioned that the nevus was 4 mm diameter with regular border.

Examination shows 6 mm diameter lesion with irregular border. There is no lymphadenopathy. Lesion biopsy confirms malignant melanoma.

What is the management of choice?

- ● **Chemotherapy**
- ○ **Pegylated interferon**
- ○ **Radiotherapy**
- ○ **Surgical resection with 5 mm diameter**
- ○ **Surgical resection with 1 cm diameter**

## Description

Surgery with wide local excision with 1 cm margin is the definitive treatment for early-stage melanoma. Adjuvant medical therapy is reserved for patients with advanced melanoma. Agents used include: interferon alfa, pegylated interferon and granulocyte-macrophage colony-stimulating factor (GM-CSF). is only utilized if there are metastases.

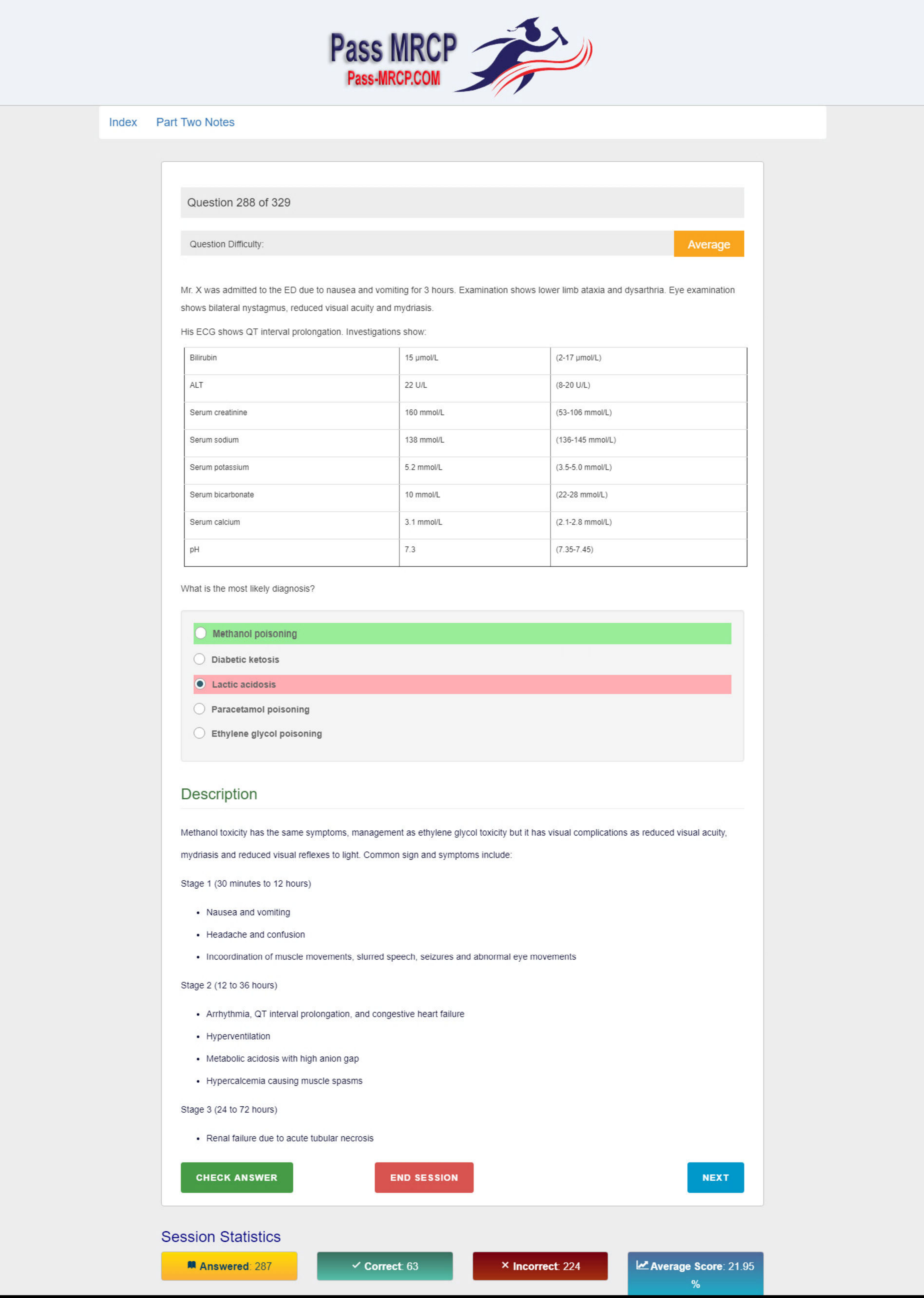
## Session Statistics

**Answered**: 286

✓ **Correct**: 63

× **Incorrect**: 223

**Average Score**: 22.03 %



Question 288 of 329

Question Difficulty: **Average**

Mr. X was admitted to the ED due to nausea and vomiting for 3 hours. Examination shows lower limb ataxia and dysarthria. Eye examination shows bilateral nystagmus, reduced visual acuity and mydriasis.

His ECG shows QT interval prolongation. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 15 µmol/L | (2-17 µmol/L) |
| ALT | 22 U/L | (8-20 U/L) |
| Serum creatinine | 160 mmol/L | (53-106 mmol/L) |
| Serum sodium | 138 mmol/L | (136-145 mmol/L) |
| Serum potassium | 5.2 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 10 mmol/L | (22-28 mmol/L) |
| Serum calcium | 3.1 mmol/L | (2.1-2.8 mmol/L) |
| pH | 7.3 | (7.35-7.45) |

What is the most likely diagnosis?

○ **Methanol poisoning**
○ **Diabetic ketosis**
● **Lactic acidosis**
○ **Paracetamol poisoning**
○ **Ethylene glycol poisoning**

## Description

Methanol toxicity has the same symptoms, management as ethylene glycol toxicity but it has visual complications as reduced visual acuity, mydriasis and reduced visual reflexes to light. Common sign and symptoms include:

Stage 1 (30 minutes to 12 hours)

- Nausea and vomiting
- Headache and confusion
- Incoordination of muscle movements, slurred speech, seizures and abnormal eye movements

Stage 2 (12 to 36 hours)

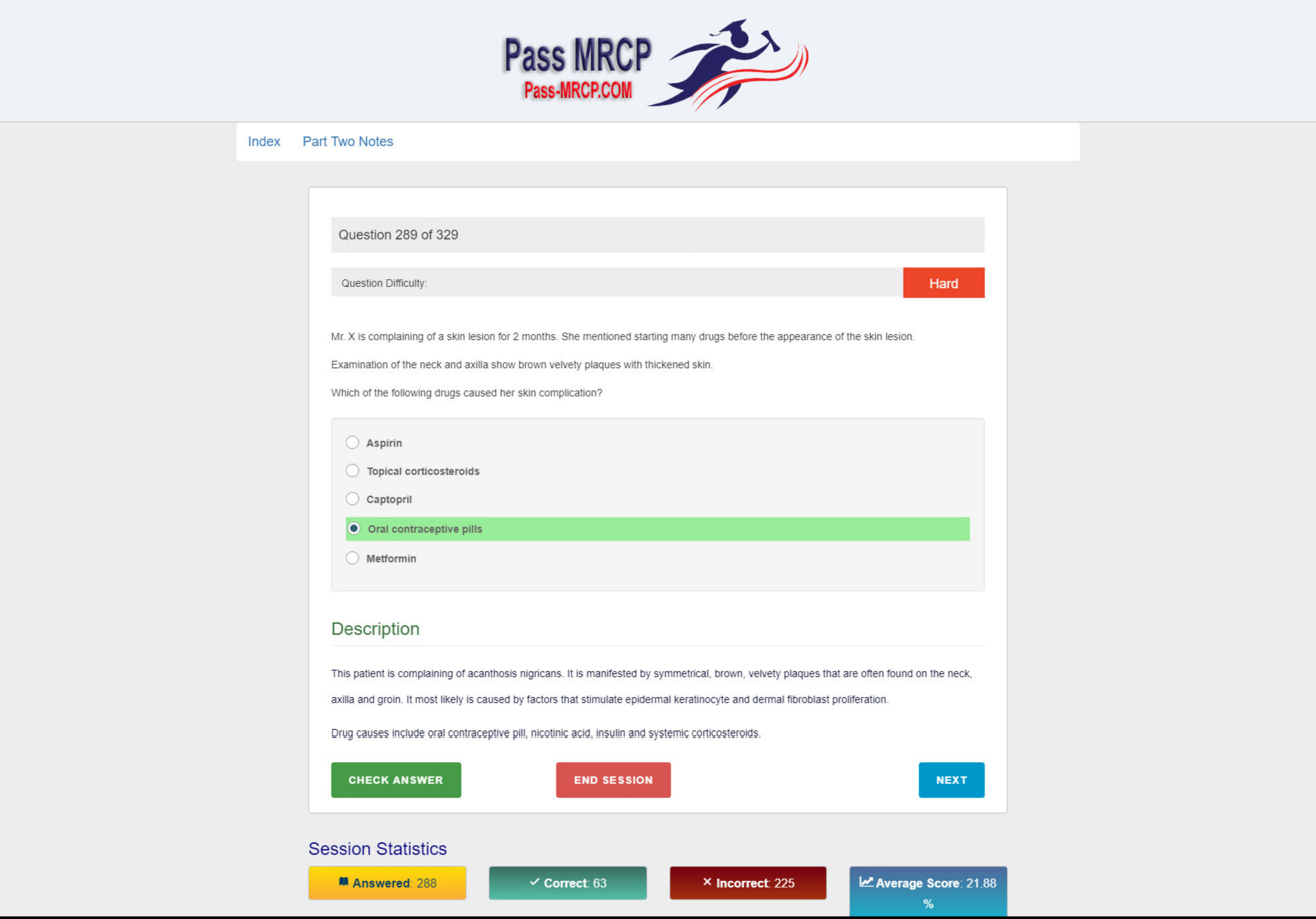
- Arrhythmia, QT interval prolongation, and congestive heart failure
- Hyperventilation
- Metabolic acidosis with high anion gap
- Hypercalcemia causing muscle spasms

Stage 3 (24 to 72 hours)

- Renal failure due to acute tubular necrosis

Session Statistics

**Answered**: 287
✓ **Correct**: 63
✕ **Incorrect**: 224
**Average Score**: 21.95 %



Question 289 of 329

Question Difficulty: Hard

Mr. X is complaining of a skin lesion for 2 months. She mentioned starting many drugs before the appearance of the skin lesion.

Examination of the neck and axilla show brown velvety plaques with thickened skin.

Which of the following drugs caused her skin complication?

- ○ **Aspirin**
- ○ **Topical corticosteroids**
- ○ **Captopril**
- ● **Oral contraceptive pills**
- ○ **Metformin**

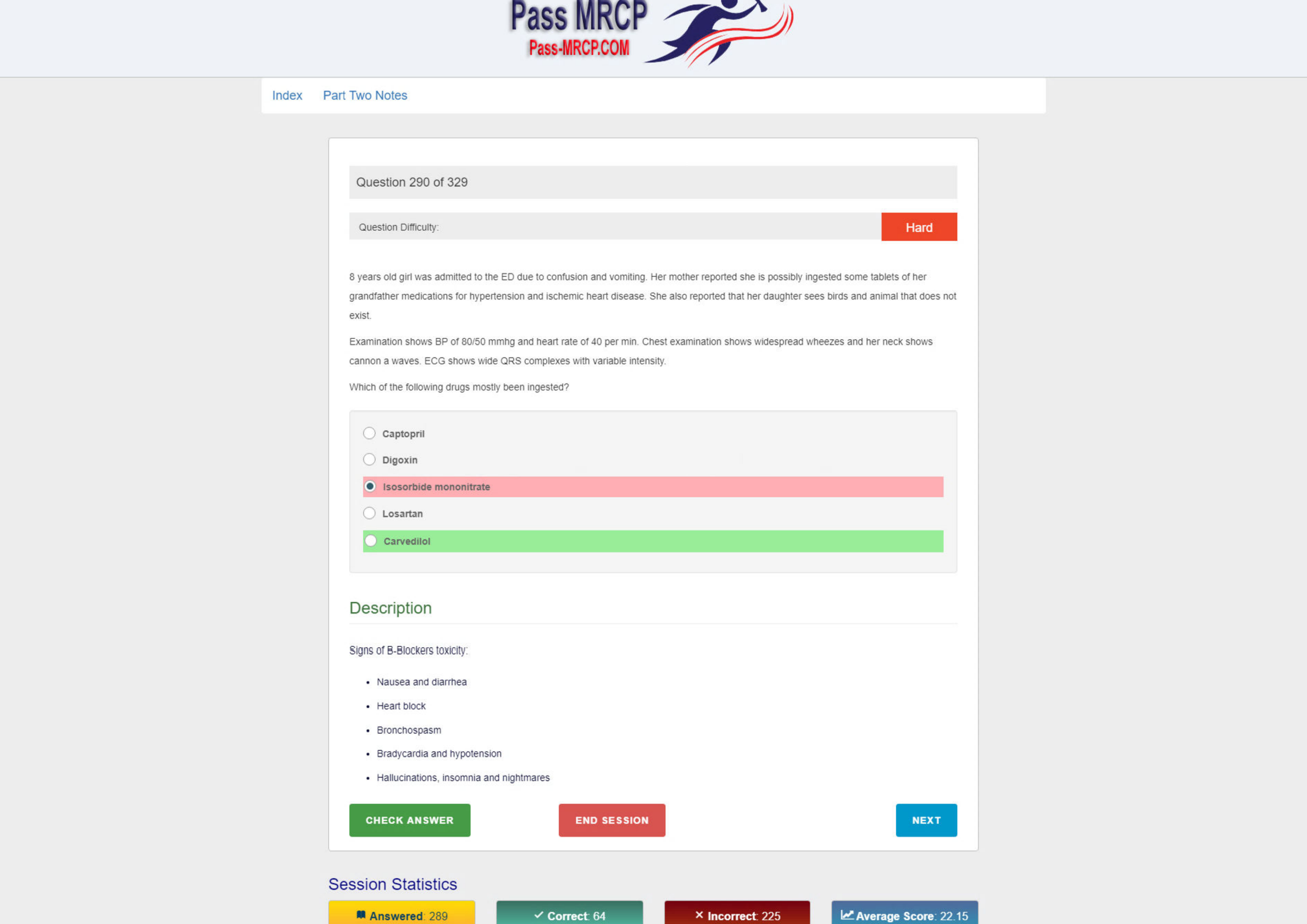
## Description

This patient is complaining of acanthosis nigricans. It is manifested by symmetrical, brown, velvety plaques that are often found on the neck, axilla and groin. It most likely is caused by factors that stimulate epidermal keratinocyte and dermal fibroblast proliferation.

Drug causes include oral contraceptive pill, nicotinic acid, insulin and systemic corticosteroids.

Session Statistics

**Answered**: 288
✓ **Correct**: 63
× **Incorrect**: 225
**Average Score**: 21.88 %



Question 290 of 329

Question Difficulty: Hard

8 years old girl was admitted to the ED due to confusion and vomiting. Her mother reported she is possibly ingested some tablets of her grandfather medications for hypertension and ischemic heart disease. She also reported that her daughter sees birds and animal that does not exist.

Examination shows BP of 80/50 mmhg and heart rate of 40 per min. Chest examination shows widespread wheezes and her neck shows cannon a waves. ECG shows wide QRS complexes with variable intensity.

Which of the following drugs mostly been ingested?

○ Captopril
○ Digoxin
● Isosorbide mononitrate
○ Losartan
○ Carvedilol

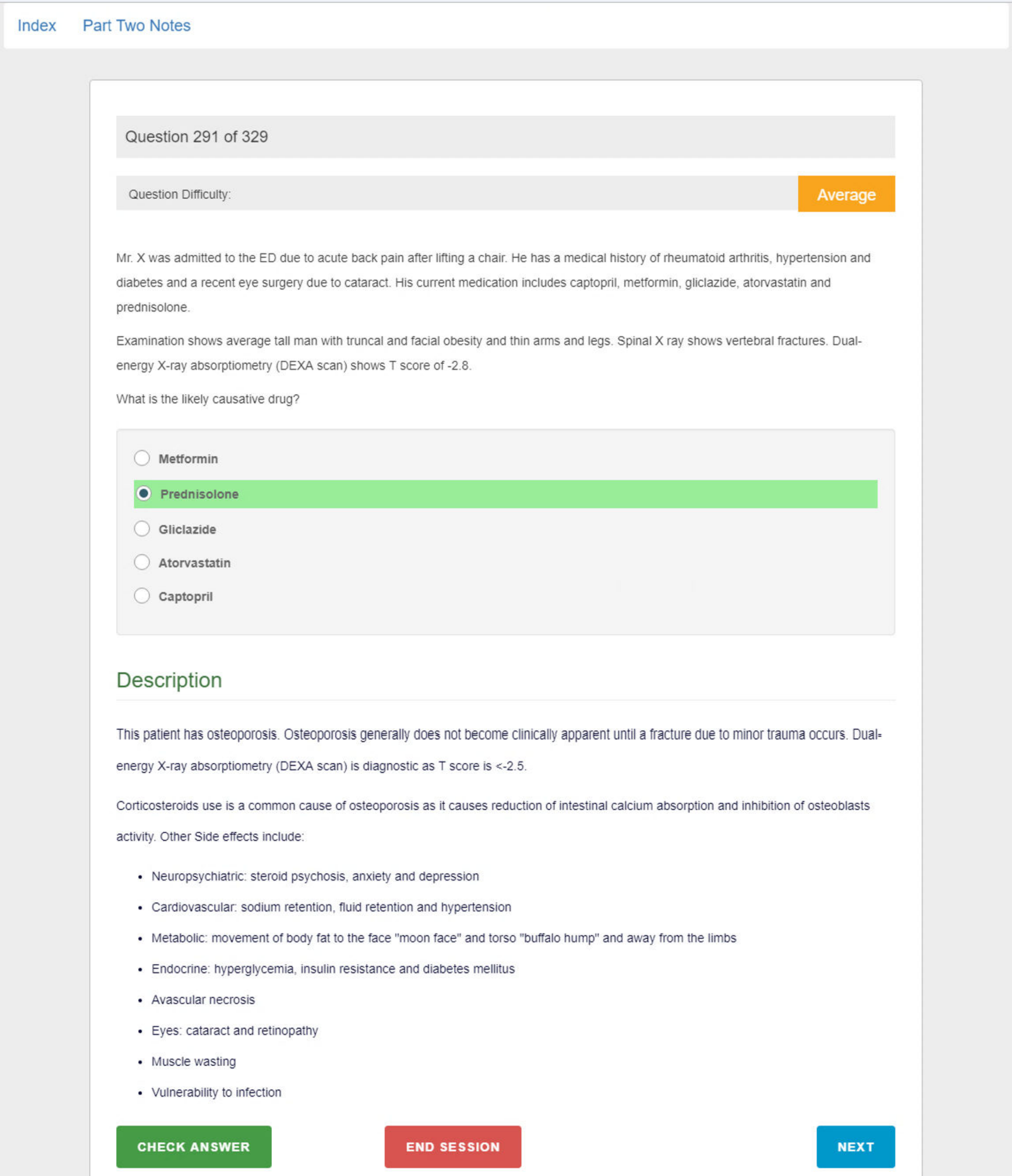
## Description

Signs of B-Blockers toxicity:

- Nausea and diarrhea
- Heart block
- Bronchospasm
- Bradycardia and hypotension
- Hallucinations, insomnia and nightmares

## Session Statistics

Answered: 289
Correct: 64
Incorrect: 225
Average Score: 22.15



Question 291 of 329

Question Difficulty: Average

Mr. X was admitted to the ED due to acute back pain after lifting a chair. He has a medical history of rheumatoid arthritis, hypertension and diabetes and a recent eye surgery due to cataract. His current medication includes captopril, metformin, gliclazide, atorvastatin and prednisolone.

Examination shows average tall man with truncal and facial obesity and thin arms and legs. Spinal X ray shows vertebral fractures. Dual-energy X-ray absorptiometry (DEXA scan) shows T score of -2.8.

What is the likely causative drug?

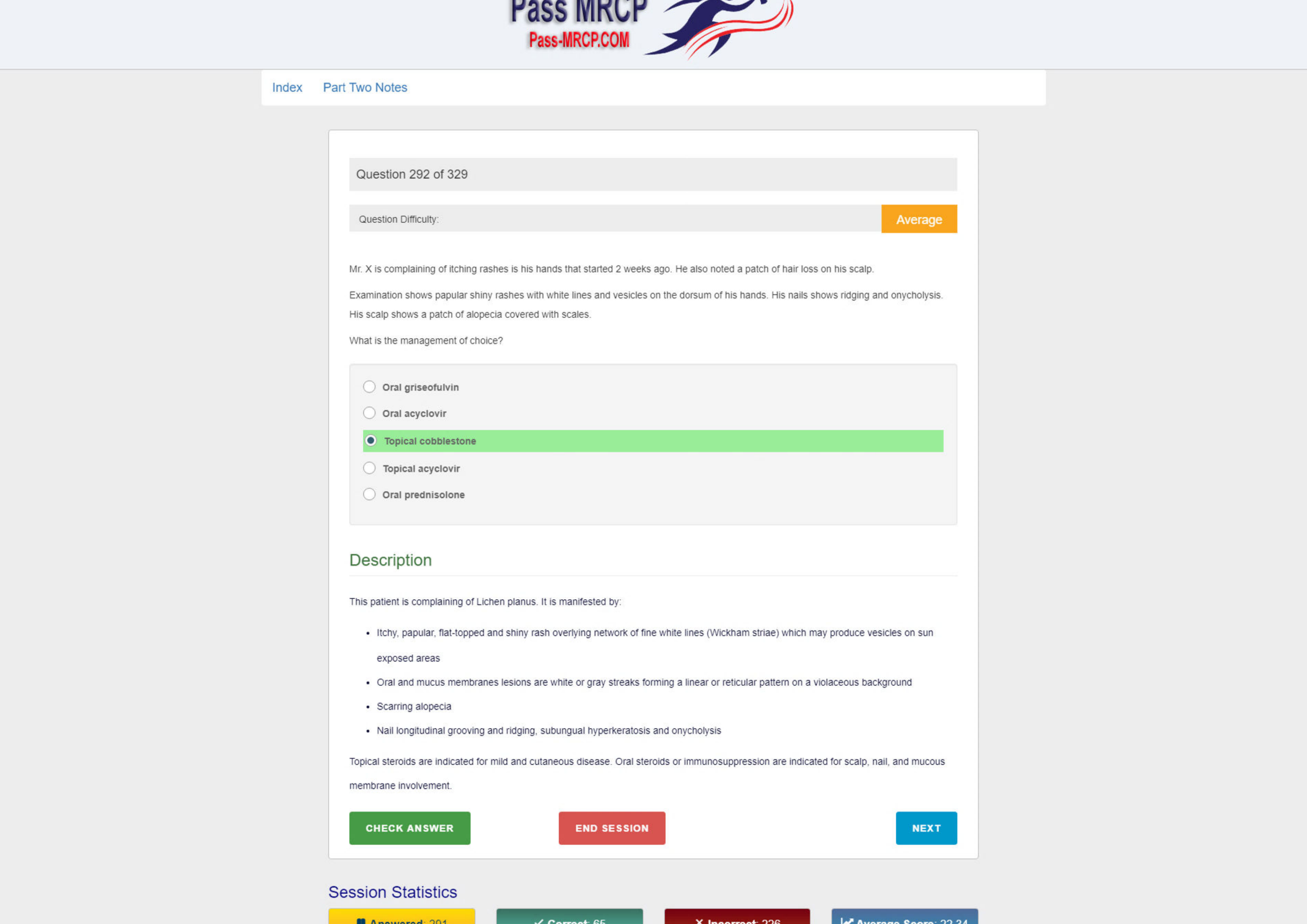
○ **Metformin**
● **Prednisolone**
○ **Gliclazide**
○ **Atorvastatin**
○ **Captopril**

## Description

This patient has osteoporosis. Osteoporosis generally does not become clinically apparent until a fracture due to minor trauma occurs. Dual-energy X-ray absorptiometry (DEXA scan) is diagnostic as T score is <-2.5.

Corticosteroids use is a common cause of osteoporosis as it causes reduction of intestinal calcium absorption and inhibition of osteoblasts activity. Other Side effects include:

- Neuropsychiatric: steroid psychosis, anxiety and depression
- Cardiovascular: sodium retention, fluid retention and hypertension
- Metabolic: movement of body fat to the face "moon face" and torso "buffalo hump" and away from the limbs
- Endocrine: hyperglycemia, insulin resistance and diabetes mellitus
- Avascular necrosis
- Eyes: cataract and retinopathy
- Muscle wasting
- Vulnerability to infection



Question 292 of 329

Question Difficulty: Average

Mr. X is complaining of itching rashes is his hands that started 2 weeks ago. He also noted a patch of hair loss on his scalp.

Examination shows papular shiny rashes with white lines and vesicles on the dorsum of his hands. His nails shows ridging and onycholysis. His scalp shows a patch of alopecia covered with scales.

What is the management of choice?

○ **Oral griseofulvin**
○ **Oral acyclovir**
● **Topical cobblestone**
○ **Topical acyclovir**
○ **Oral prednisolone**

## Description

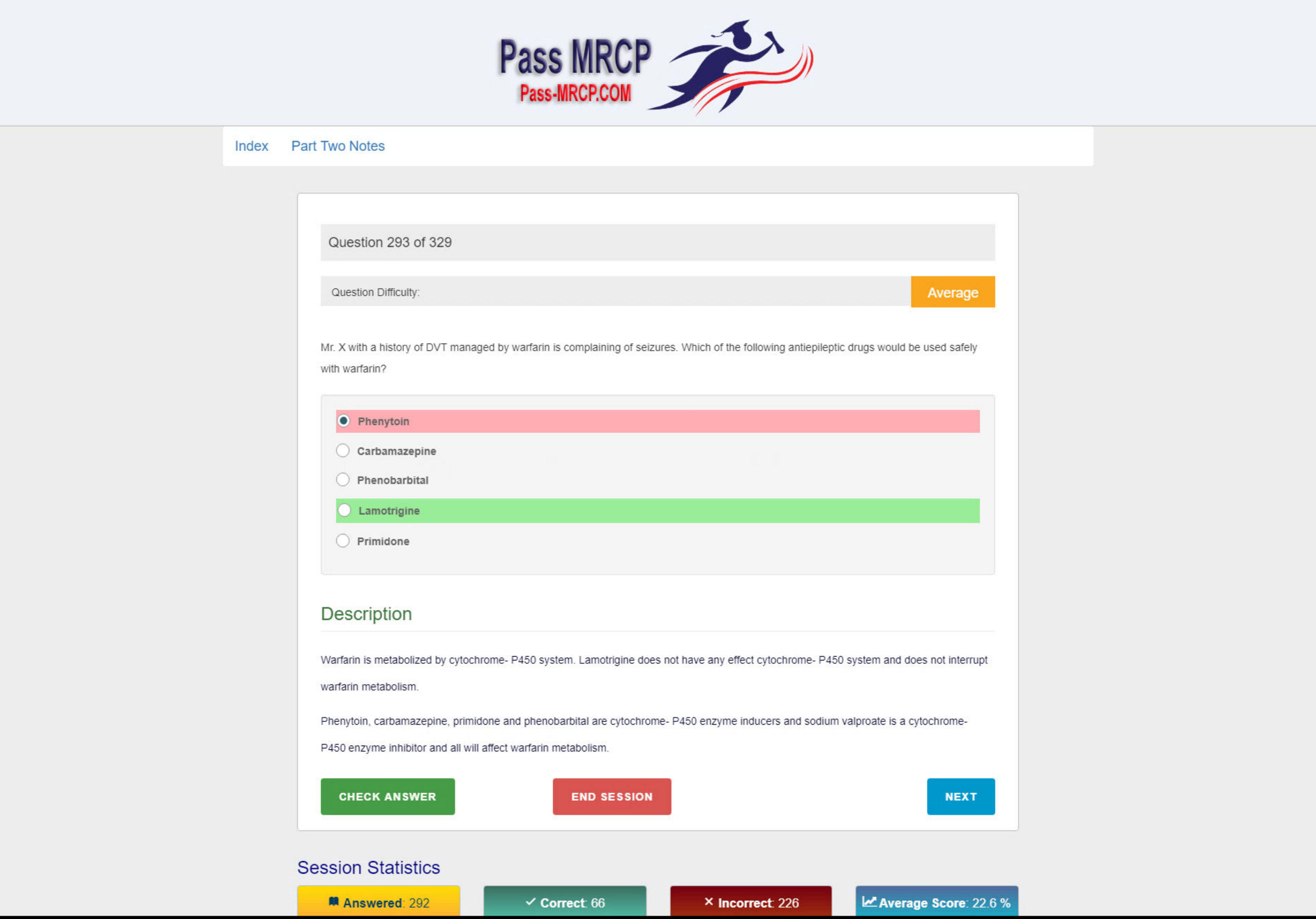
This patient is complaining of Lichen planus. It is manifested by:

- Itchy, papular, flat-topped and shiny rash overlying network of fine white lines (Wickham striae) which may produce vesicles on sun exposed areas
- Oral and mucus membranes lesions are white or gray streaks forming a linear or reticular pattern on a violaceous background
- Scarring alopecia
- Nail longitudinal grooving and ridging, subungual hyperkeratosis and onycholysis

Topical steroids are indicated for mild and cutaneous disease. Oral steroids or immunosuppression are indicated for scalp, nail, and mucous membrane involvement.

## Session Statistics

Answered: 291
✓ Correct: 65
✕ Incorrect: 226
Average Score: 22.34



Question 293 of 329

Question Difficulty: Average

Mr. X with a history of DVT managed by warfarin is complaining of seizures. Which of the following antiepileptic drugs would be used safely with warfarin?

● Phenytoin
○ Carbamazepine
○ Phenobarbital
○ Lamotrigine
○ Primidone

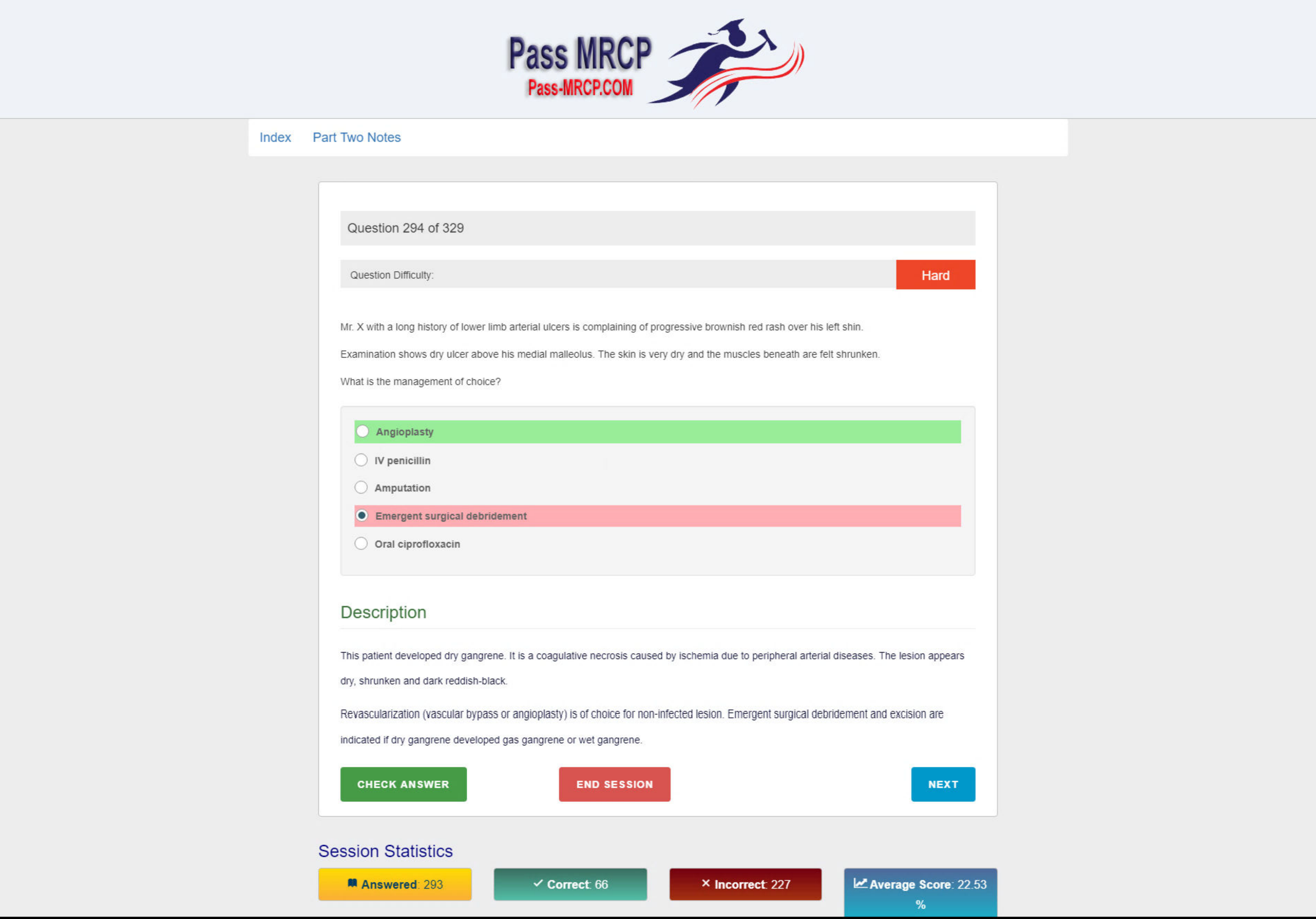
## Description

Warfarin is metabolized by cytochrome- P450 system. Lamotrigine does not have any effect cytochrome- P450 system and does not interrupt warfarin metabolism.

Phenytoin, carbamazepine, primidone and phenobarbital are cytochrome- P450 enzyme inducers and sodium valproate is a cytochrome- P450 enzyme inhibitor and all will affect warfarin metabolism.

Session Statistics

Answered: 292
✓ Correct: 66
✕ Incorrect: 226
Average Score: 22.6 %



Question 294 of 329

Question Difficulty: Hard

Mr. X with a long history of lower limb arterial ulcers is complaining of progressive brownish red rash over his left shin.

Examination shows dry ulcer above his medial malleolus. The skin is very dry and the muscles beneath are felt shrunken.

What is the management of choice?

- ○ Angioplasty
- ○ IV penicillin
- ○ Amputation
- ● Emergent surgical debridement
- ○ Oral ciprofloxacin

## Description

This patient developed dry gangrene. It is a coagulative necrosis caused by ischemia due to peripheral arterial diseases. The lesion appears dry, shrunken and dark reddish-black.

Revascularization (vascular bypass or angioplasty) is of choice for non-infected lesion. Emergent surgical debridement and excision are indicated if dry gangrene developed gas gangrene or wet gangrene.

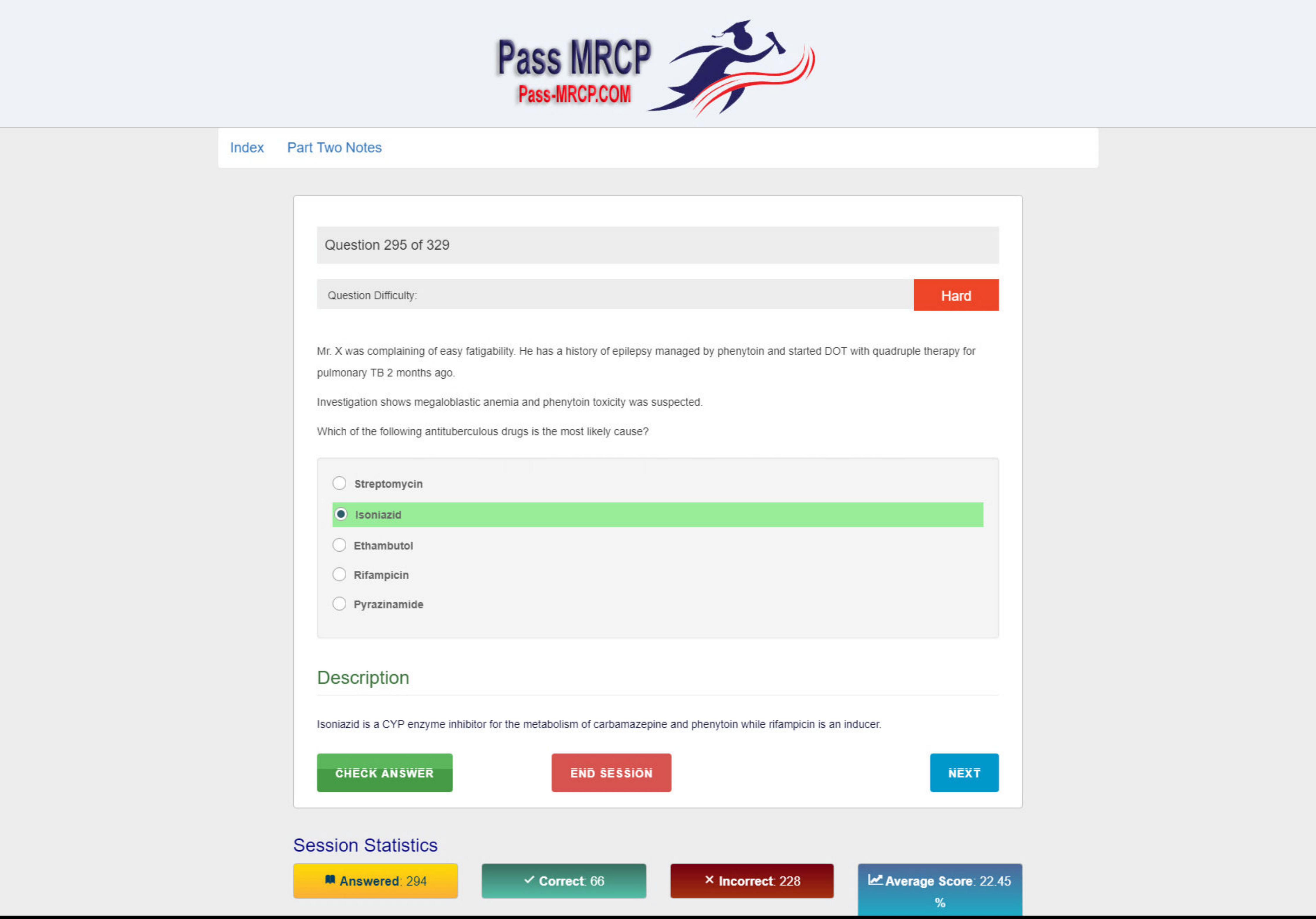
Session Statistics

Answered: 293

✓ Correct: 66

× Incorrect: 227

Average Score: 22.53 %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Part Two Notes

Question 295 of 329

Question Difficulty: **Hard**

Mr. X was complaining of easy fatigability. He has a history of epilepsy managed by phenytoin and started DOT with quadruple therapy for pulmonary TB 2 months ago.

Investigation shows megaloblastic anemia and phenytoin toxicity was suspected.

Which of the following antituberculous drugs is the most likely cause?

- ○ **Streptomycin**
- ● **Isoniazid**
- ○ **Ethambutol**
- ○ **Rifampicin**
- ○ **Pyrazinamide**

## Description

Isoniazid is a CYP enzyme inhibitor for the metabolism of carbamazepine and phenytoin while rifampicin is an inducer.

CHECK ANSWER
END SESSION
NEXT

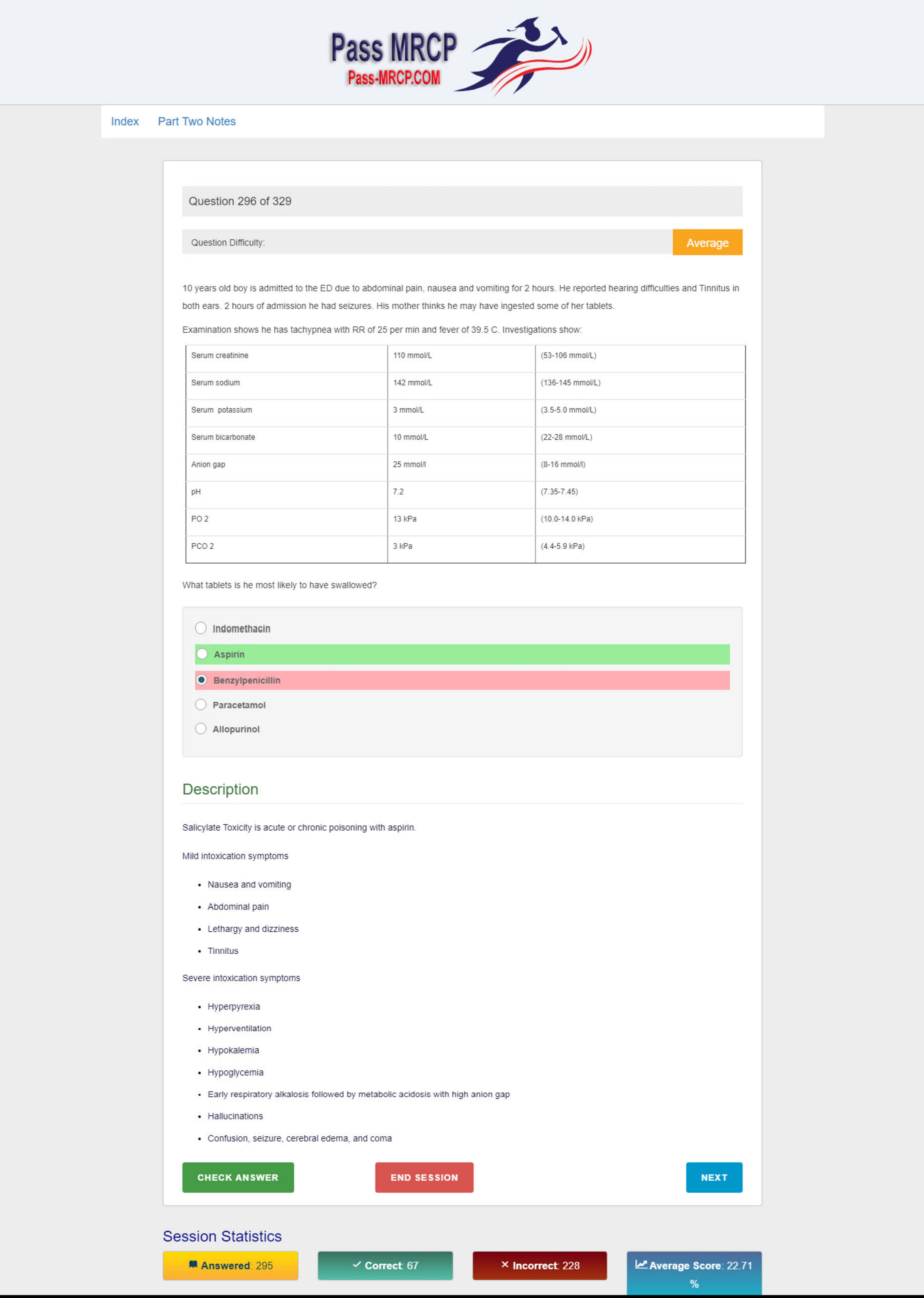
## Session Statistics

**Answered**: 294

✓ **Correct**: 66

✕ **Incorrect**: 228

**Average Score**: 22.45 %



Question 296 of 329

Question Difficulty: **Average**

10 years old boy is admitted to the ED due to abdominal pain, nausea and vomiting for 2 hours. He reported hearing difficulties and Tinnitus in both ears. 2 hours of admission he had seizures. His mother thinks he may have ingested some of her tablets.

Examination shows he has tachypnea with RR of 25 per min and fever of 39.5 C. Investigations show:

| | | |
|---|---|---|
| Serum creatinine | 110 mmol/L | (53-106 mmol/L) |
| Serum sodium | 142 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3 mmol/L | (3.5-5.0 mmol/L) |
| Serum bicarbonate | 10 mmol/L | (22-28 mmol/L) |
| Anion gap | 25 mmol/l | (8-16 mmol/l) |
| pH | 7.2 | (7.35-7.45) |
| PO 2 | 13 kPa | (10.0-14.0 kPa) |
| PCO 2 | 3 kPa | (4.4-5.9 kPa) |

What tablets is he most likely to have swallowed?

○ **Indomethacin**

○ **Aspirin** 🟩

● **Benzylpenicillin** 🟥

○ **Paracetamol**

○ **Allopurinol**

## Description

Salicylate Toxicity is acute or chronic poisoning with aspirin.

Mild intoxication symptoms

- Nausea and vomiting
- Abdominal pain
- Lethargy and dizziness
- Tinnitus

Severe intoxication symptoms

- Hyperpyrexia
- Hyperventilation
- Hypokalemia
- Hypoglycemia
- Early respiratory alkalosis followed by metabolic acidosis with high anion gap
- Hallucinations
- Confusion, seizure, cerebral edema, and coma

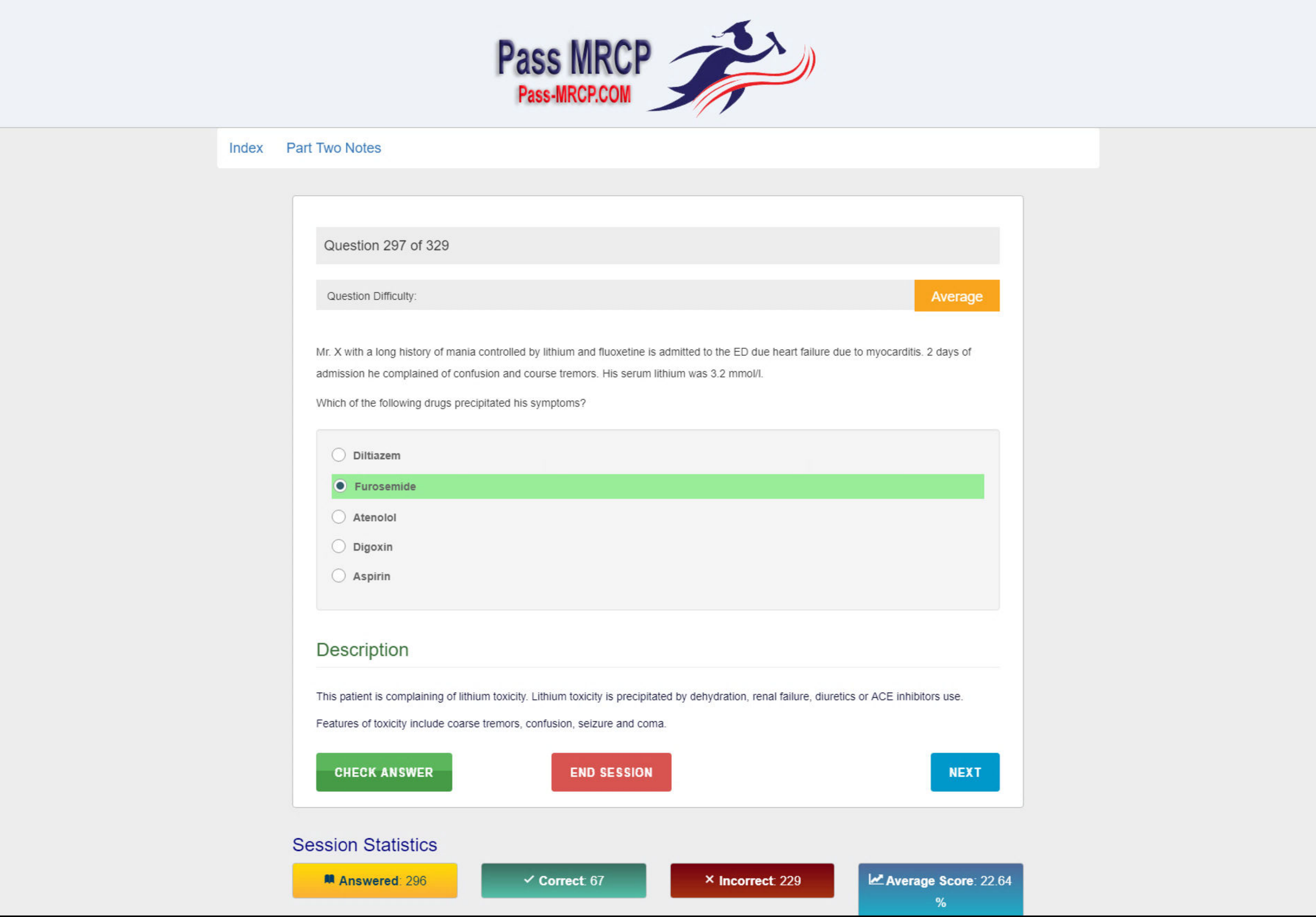
## Session Statistics

**Answered**: 295

✓ **Correct**: 67

✕ **Incorrect**: 228

**Average Score**: 22.71 %



Question 297 of 329

Question Difficulty: Average

Mr. X with a long history of mania controlled by lithium and fluoxetine is admitted to the ED due heart failure due to myocarditis. 2 days of admission he complained of confusion and course tremors. His serum lithium was 3.2 mmol/l.

Which of the following drugs precipitated his symptoms?

○ Diltiazem
● Furosemide
○ Atenolol
○ Digoxin
○ Aspirin

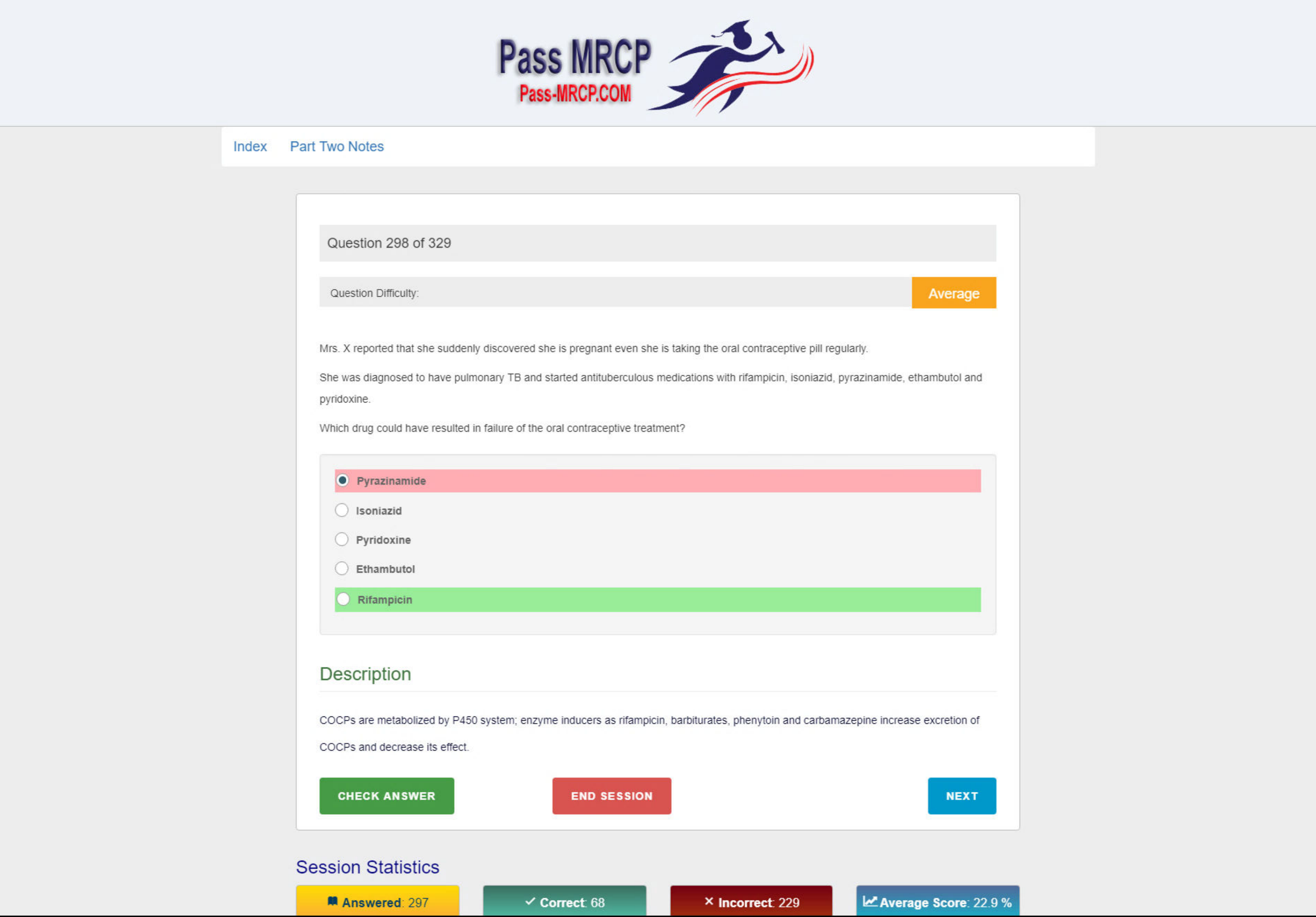
Description

This patient is complaining of lithium toxicity. Lithium toxicity is precipitated by dehydration, renal failure, diuretics or ACE inhibitors use.

Features of toxicity include coarse tremors, confusion, seizure and coma.

Session Statistics

Answered: 296
✓ Correct: 67
✕ Incorrect: 229
Average Score: 22.64 %



Question 298 of 329

Question Difficulty: Average

Mrs. X reported that she suddenly discovered she is pregnant even she is taking the oral contraceptive pill regularly.

She was diagnosed to have pulmonary TB and started antituberculous medications with rifampicin, isoniazid, pyrazinamide, ethambutol and pyridoxine.

Which drug could have resulted in failure of the oral contraceptive treatment?

- ● **Pyrazinamide**
- ○ **Isoniazid**
- ○ **Pyridoxine**
- ○ **Ethambutol**
- ○ **Rifampicin**

## Description

COCPs are metabolized by P450 system; enzyme inducers as rifampicin, barbiturates, phenytoin and carbamazepine increase excretion of COCPs and decrease its effect.

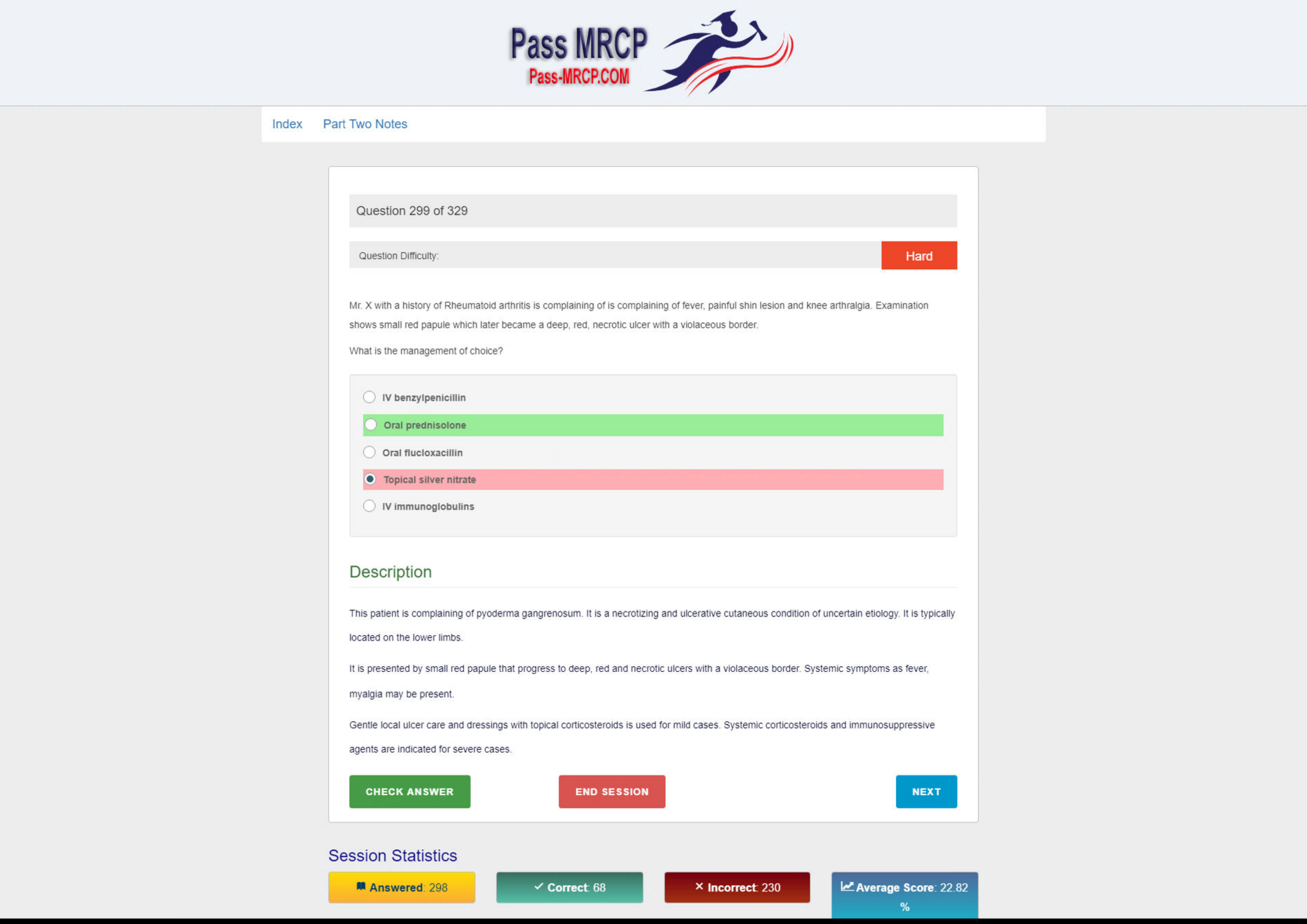
## Session Statistics

**Answered**: 297

✓ **Correct**: 68

✕ **Incorrect**: 229

**Average Score**: 22.9 %



Question 299 of 329

Question Difficulty: Hard

Mr. X with a history of Rheumatoid arthritis is complaining of is complaining of fever, painful shin lesion and knee arthralgia. Examination shows small red papule which later became a deep, red, necrotic ulcer with a violaceous border.

What is the management of choice?

- ○ IV benzylpenicillin
- ○ Oral prednisolone
- ○ Oral flucloxacillin
- ● Topical silver nitrate
- ○ IV immunoglobulins

## Description

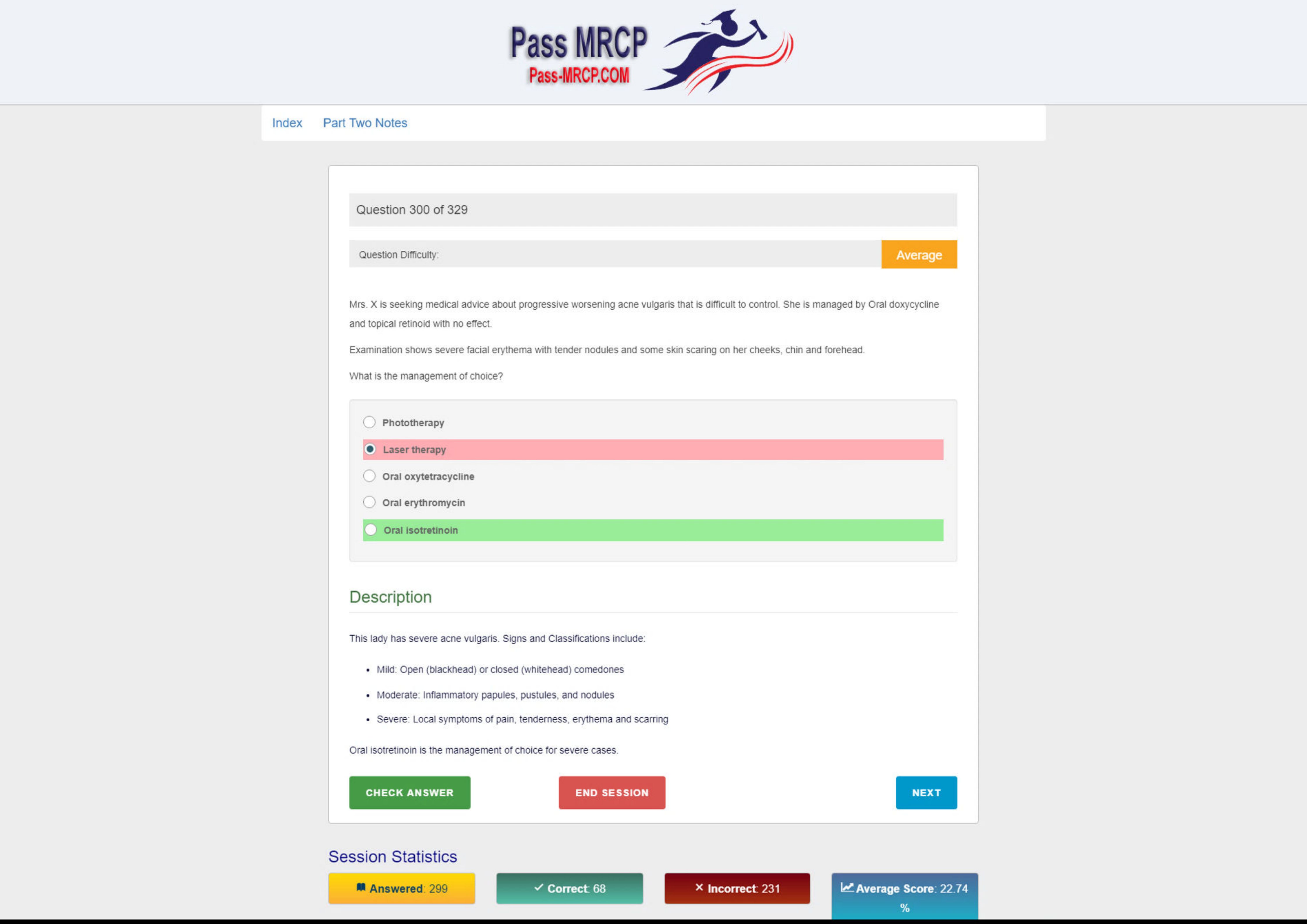
This patient is complaining of pyoderma gangrenosum. It is a necrotizing and ulcerative cutaneous condition of uncertain etiology. It is typically located on the lower limbs.

It is presented by small red papule that progress to deep, red and necrotic ulcers with a violaceous border. Systemic symptoms as fever, myalgia may be present.

Gentle local ulcer care and dressings with topical corticosteroids is used for mild cases. Systemic corticosteroids and immunosuppressive agents are indicated for severe cases.

Session Statistics

**Answered**: 298
**Correct**: 68
**Incorrect**: 230
**Average Score**: 22.82 %



Question 300 of 329

Question Difficulty: Average

Mrs. X is seeking medical advice about progressive worsening acne vulgaris that is difficult to control. She is managed by Oral doxycycline and topical retinoid with no effect.

Examination shows severe facial erythema with tender nodules and some skin scaring on her cheeks, chin and forehead.

What is the management of choice?

○ Phototherapy
● Laser therapy
○ Oral oxytetracycline
○ Oral erythromycin
○ Oral isotretinoin

## Description

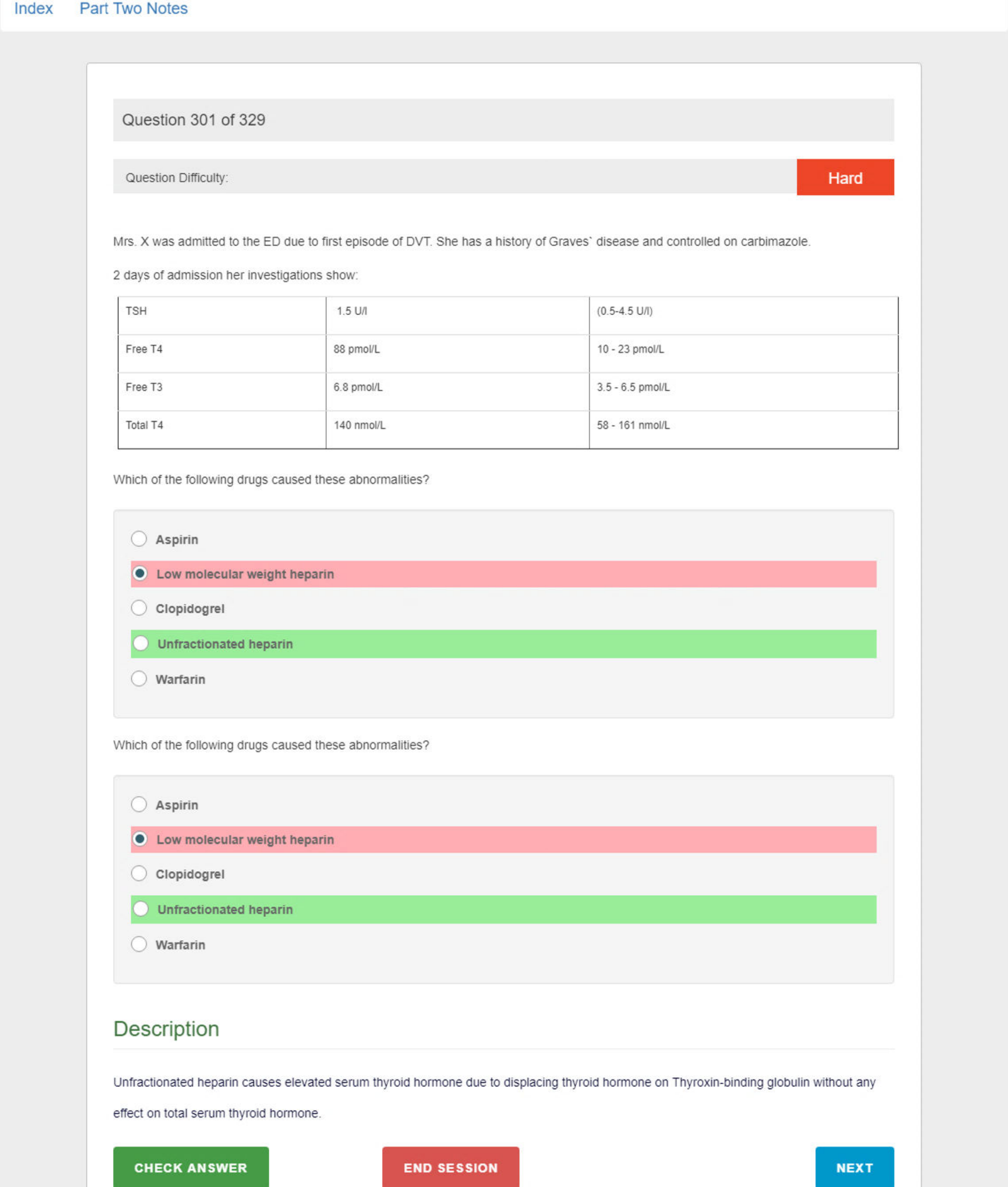
This lady has severe acne vulgaris. Signs and Classifications include:

- Mild: Open (blackhead) or closed (whitehead) comedones
- Moderate: Inflammatory papules, pustules, and nodules
- Severe: Local symptoms of pain, tenderness, erythema and scarring

Oral isotretinoin is the management of choice for severe cases.

## Session Statistics

Answered: 299
✓ Correct: 68
✕ Incorrect: 231
Average Score: 22.74 %



Question 301 of 329

Question Difficulty:

Mrs. X was admitted to the ED due to first episode of DVT. She has a history of Graves` disease and controlled on carbimazole.

2 days of admission her investigations show:

| | | |
|---|---|---|
| TSH | 1.5 U/l | (0.5-4.5 U/l) |
| Free T4 | 88 pmol/L | 10 - 23 pmol/L |
| Free T3 | 6.8 pmol/L | 3.5 - 6.5 pmol/L |
| Total T4 | 140 nmol/L | 58 - 161 nmol/L |

Which of the following drugs caused these abnormalities?

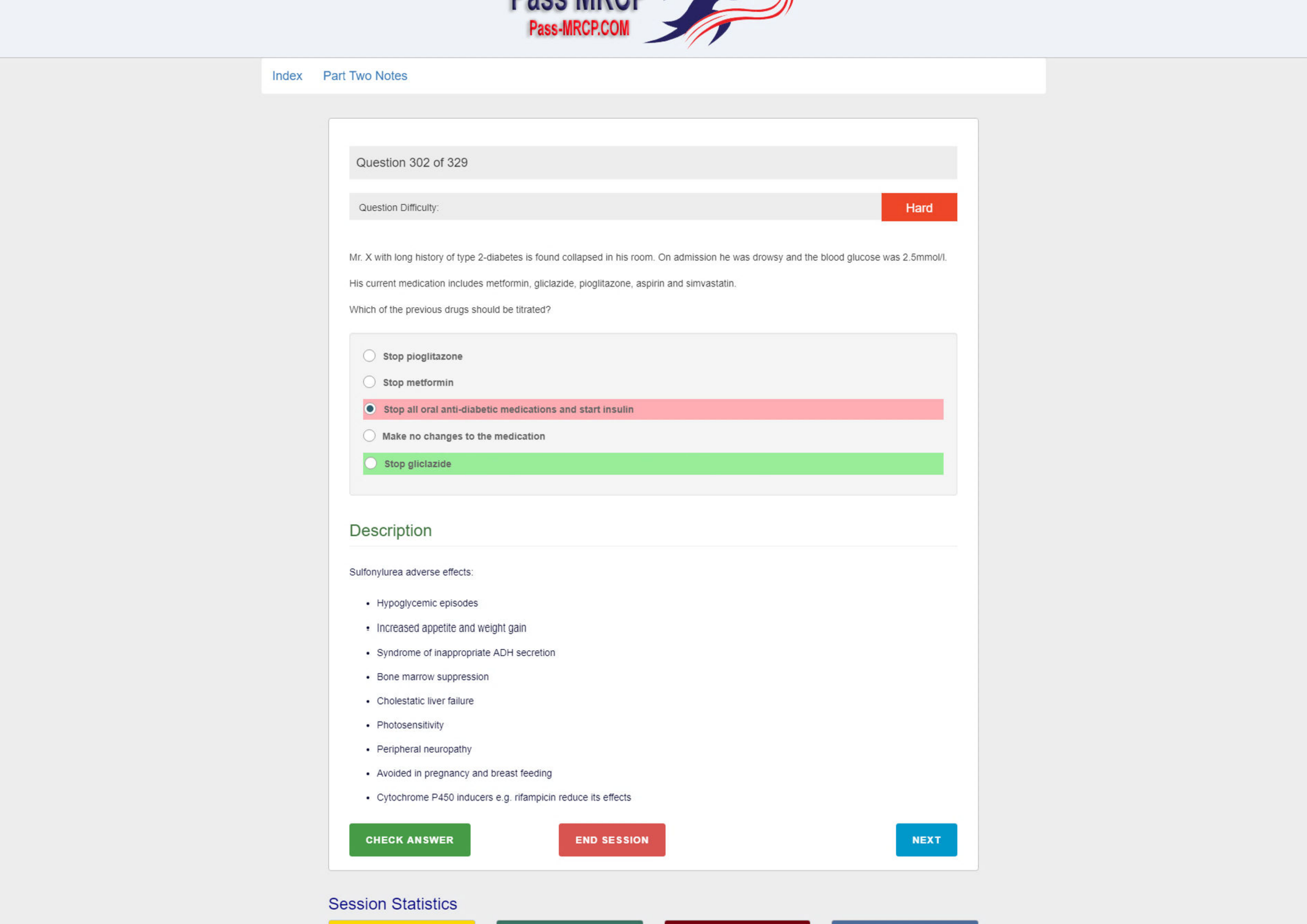
- ○ **Aspirin**
- ● **Low molecular weight heparin**
- ○ **Clopidogrel**
- ○ **Unfractionated heparin**
- ○ **Warfarin**

Which of the following drugs caused these abnormalities?

- ○ **Aspirin**
- ● **Low molecular weight heparin**
- ○ **Clopidogrel**
- ○ **Unfractionated heparin**
- ○ **Warfarin**

## Description

Unfractionated heparin causes elevated serum thyroid hormone due to displacing thyroid hormone on Thyroxin-binding globulin without any effect on total serum thyroid hormone.



Question 302 of 329

Question Difficulty: Hard

Mr. X with long history of type 2-diabetes is found collapsed in his room. On admission he was drowsy and the blood glucose was 2.5mmol/l.

His current medication includes metformin, gliclazide, pioglitazone, aspirin and simvastatin.

Which of the previous drugs should be titrated?

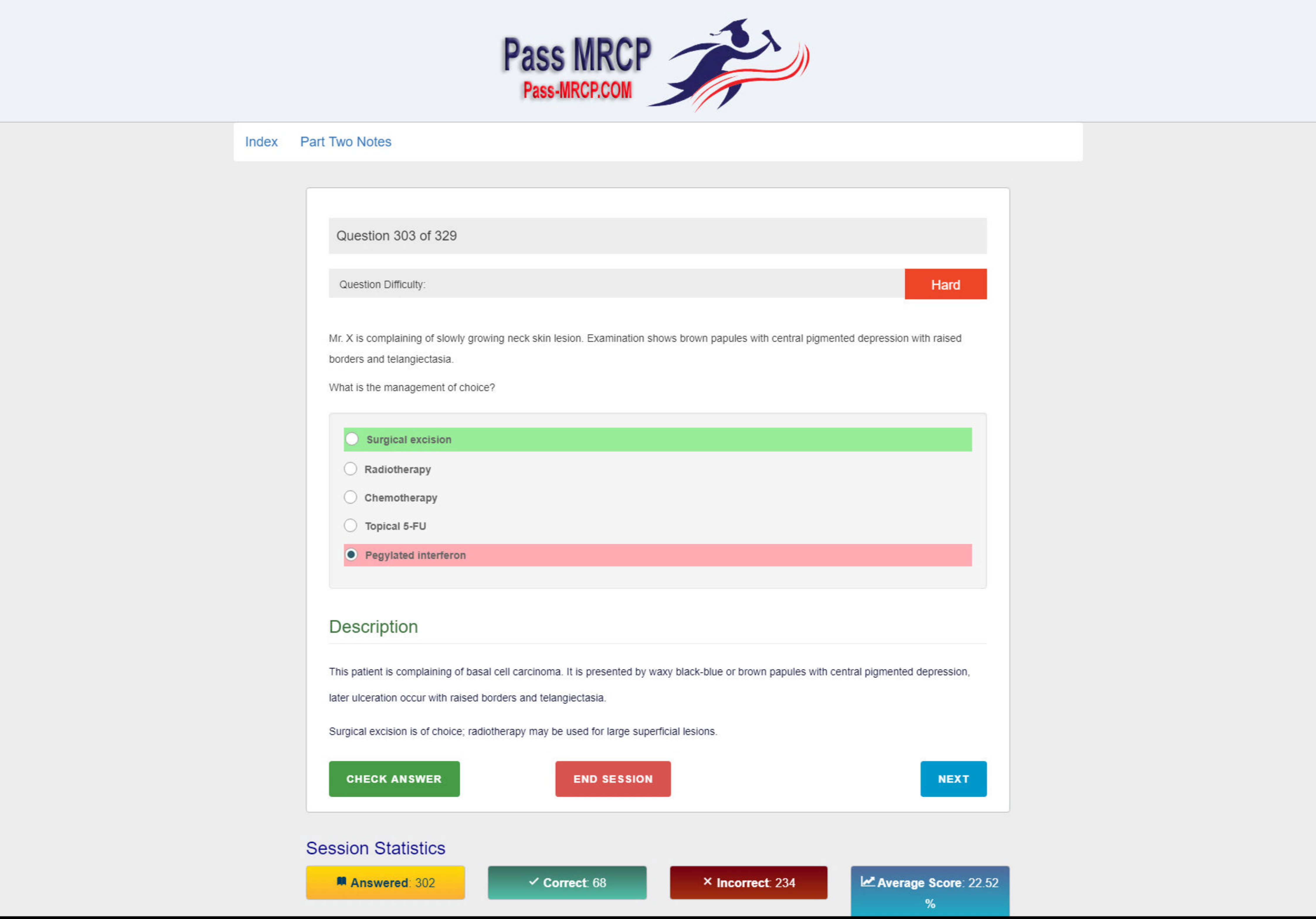
○ **Stop pioglitazone**
○ **Stop metformin**
● **Stop all oral anti-diabetic medications and start insulin**
○ **Make no changes to the medication**
○ **Stop gliclazide**

## Description

Sulfonylurea adverse effects:

- Hypoglycemic episodes
- Increased appetite and weight gain
- Syndrome of inappropriate ADH secretion
- Bone marrow suppression
- Cholestatic liver failure
- Photosensitivity
- Peripheral neuropathy
- Avoided in pregnancy and breast feeding
- Cytochrome P450 inducers e.g. rifampicin reduce its effects

Session Statistics



Question 303 of 329

Question Difficulty: **Hard**

Mr. X is complaining of slowly growing neck skin lesion. Examination shows brown papules with central pigmented depression with raised borders and telangiectasia.

What is the management of choice?

- ○ **Surgical excision**
- ○ **Radiotherapy**
- ○ **Chemotherapy**
- ○ **Topical 5-FU**
- ● **Pegylated interferon**

## Description

This patient is complaining of basal cell carcinoma. It is presented by waxy black-blue or brown papules with central pigmented depression, later ulceration occur with raised borders and telangiectasia.

Surgical excision is of choice; radiotherapy may be used for large superficial lesions.

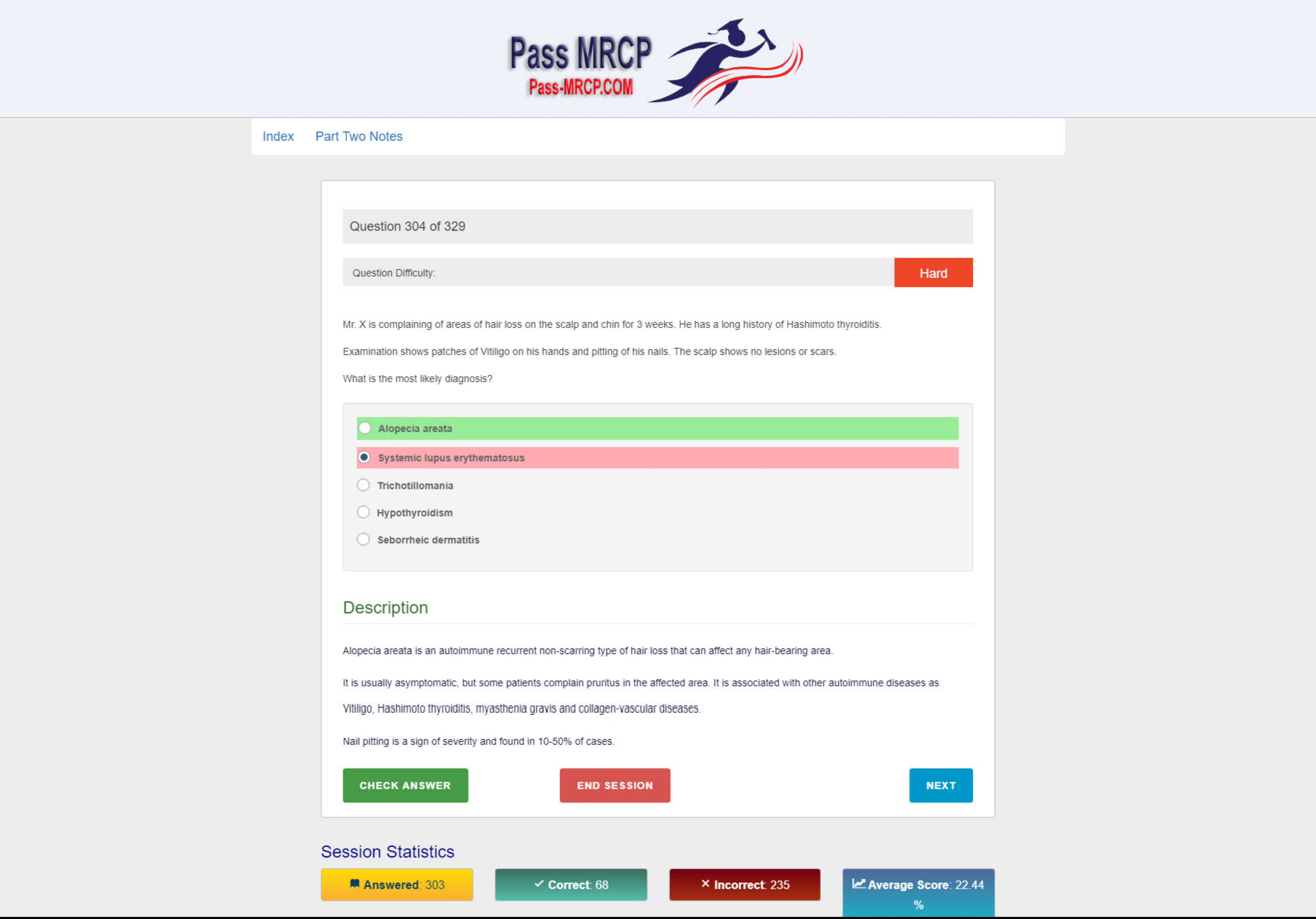
## Session Statistics

**Answered**: 302

✓ **Correct**: 68

✕ **Incorrect**: 234

**Average Score**: 22.52 %



Question 304 of 329

Question Difficulty: Hard

Mr. X is complaining of areas of hair loss on the scalp and chin for 3 weeks. He has a long history of Hashimoto thyroiditis.

Examination shows patches of Vitiligo on his hands and pitting of his nails. The scalp shows no lesions or scars.

What is the most likely diagnosis?

- ○ Alopecia areata
- ● Systemic lupus erythematosus
- ○ Trichotillomania
- ○ Hypothyroidism
- ○ Seborrheic dermatitis

## Description

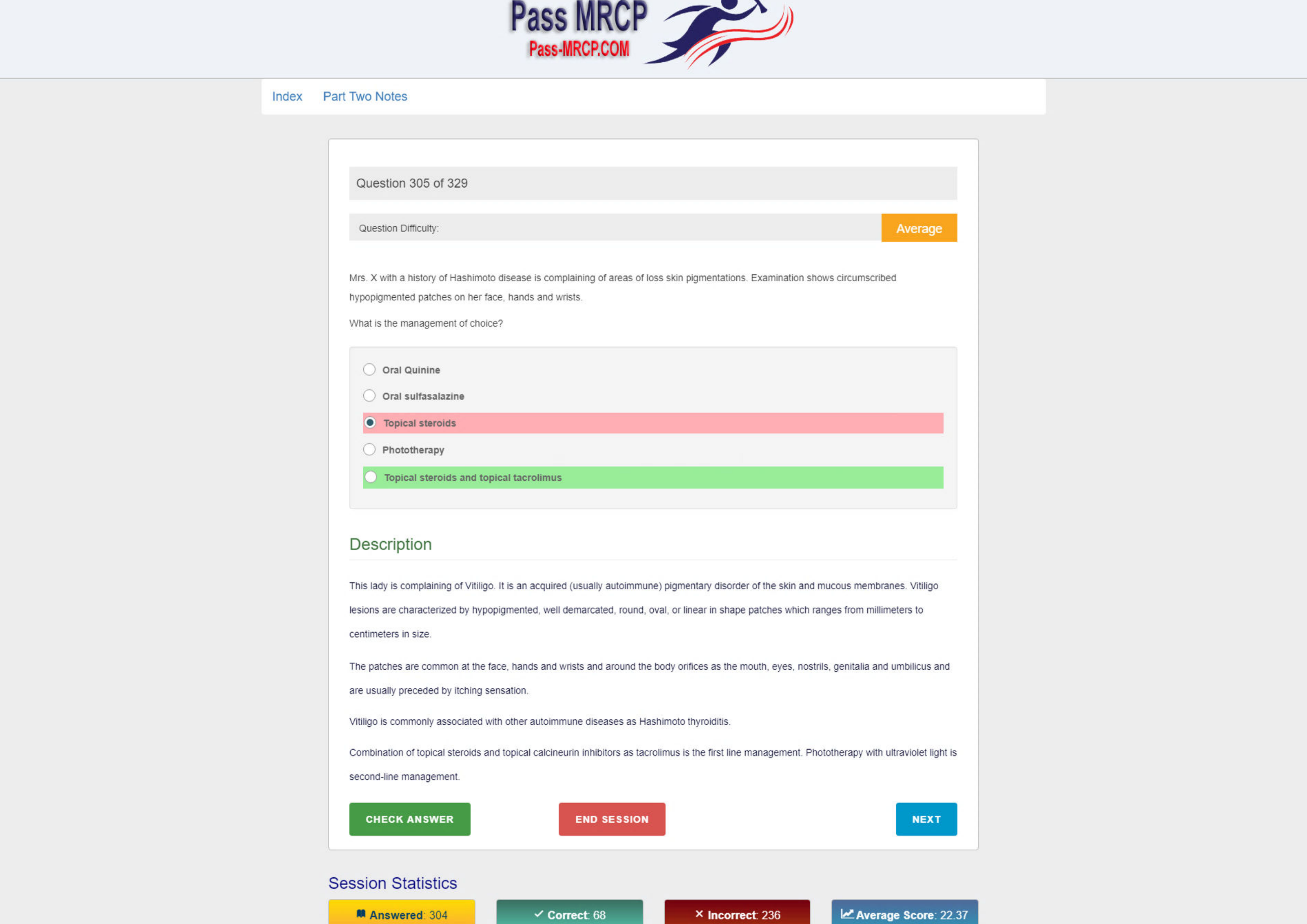
Alopecia areata is an autoimmune recurrent non-scarring type of hair loss that can affect any hair-bearing area.

It is usually asymptomatic, but some patients complain pruritus in the affected area. It is associated with other autoimmune diseases as Vitiligo, Hashimoto thyroiditis, myasthenia gravis and collagen-vascular diseases.

Nail pitting is a sign of severity and found in 10-50% of cases.

## Session Statistics

Answered: 303
✓ Correct: 68
× Incorrect: 235
Average Score: 22.44 %



Question 305 of 329

Question Difficulty: Average

Mrs. X with a history of Hashimoto disease is complaining of areas of loss skin pigmentations. Examination shows circumscribed hypopigmented patches on her face, hands and wrists.

What is the management of choice?

○ Oral Quinine
○ Oral sulfasalazine
● Topical steroids
○ Phototherapy
○ Topical steroids and topical tacrolimus

## Description

This lady is complaining of Vitiligo. It is an acquired (usually autoimmune) pigmentary disorder of the skin and mucous membranes. Vitiligo lesions are characterized by hypopigmented, well demarcated, round, oval, or linear in shape patches which ranges from millimeters to centimeters in size.

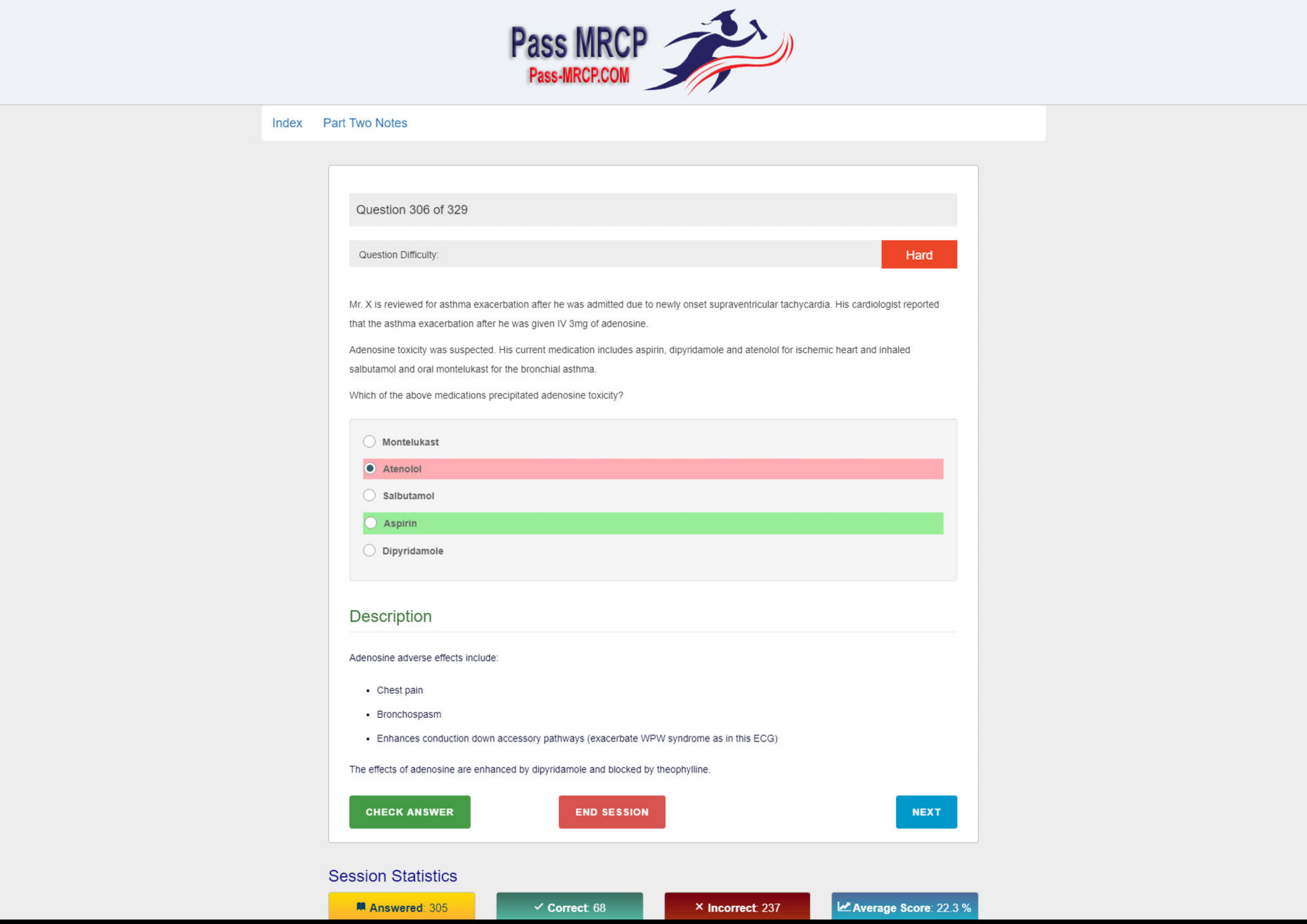
The patches are common at the face, hands and wrists and around the body orifices as the mouth, eyes, nostrils, genitalia and umbilicus and are usually preceded by itching sensation.

Vitiligo is commonly associated with other autoimmune diseases as Hashimoto thyroiditis.

Combination of topical steroids and topical calcineurin inhibitors as tacrolimus is the first line management. Phototherapy with ultraviolet light is second-line management.

## Session Statistics

Answered: 304
Correct: 68
Incorrect: 236
Average Score: 22.37



Question 306 of 329

Question Difficulty: Hard

Mr. X is reviewed for asthma exacerbation after he was admitted due to newly onset supraventricular tachycardia. His cardiologist reported that the asthma exacerbation after he was given IV 3mg of adenosine.

Adenosine toxicity was suspected. His current medication includes aspirin, dipyridamole and atenolol for ischemic heart and inhaled salbutamol and oral montelukast for the bronchial asthma.

Which of the above medications precipitated adenosine toxicity?

○ **Montelukast**
● **Atenolol**
○ **Salbutamol**
○ **Aspirin**
○ **Dipyridamole**

## Description

Adenosine adverse effects include:

- Chest pain
- Bronchospasm
- Enhances conduction down accessory pathways (exacerbate WPW syndrome as in this ECG)

The effects of adenosine are enhanced by dipyridamole and blocked by theophylline.

Session Statistics

**Answered**: 305
✓ **Correct**: 68
✕ **Incorrect**: 237
**Average Score**: 22.3 %

Question 307 of 329

Question Difficulty: **Average**

Mr. X was admitted to the ED after a failed suicidal attempt. He is complaining of abdominal pain, nausea and vomiting.

Examination shows he was confused with some partial seizures. His BP was 90/60 mmhg. Chest examination shows basal crackles. Abdominal X ray shows number of small radiopaque shadows in the center of the abdomen. Investigations show:

| | | |
|---|---|---|
| Bilirubin | 45 µmol/L | (2-17 µmol/L) |
| ALT | 250 U/L | (8-20 U/L) |
| Serum creatinine | 150 mmol/L | (53-106 mmol/L) |
| Serum sodium | 140 mmol/L | (136-145 mmol/L) |
| Serum potassium | 3.2 mmol/L | (3.5-5.0 mmol/L) |
| pH | 7.3 | (7.35-7.45) |
| PO 2 | 14.5 kPa | (10.0-14.0 kPa) |
| PCO 2 | 4 kPa | (4.4-5.9 kPa) |
| Serum bicarbonate | 16 mmol/L | (22-28 mmol/L) |

Which of the followings has been ingested?

| | | |
|---|---|---|
| Serum potassium | 3.2 mmol/L | (3.5-5.0 mmol/L) |
| pH | 7.3 | (7.35-7.45) |
| PO 2 | 14.5 kPa | (10.0-14.0 kPa) |
| PCO 2 | 4 kPa | (4.4-5.9 kPa) |
| Serum bicarbonate | 16 mmol/L | (22-28 mmol/L) |

Which of the followings has been ingested?

○ **Salicylates**
● **Iron**
○ **Tricyclic antidepressants**
○ **Digoxin**
○ **Methanol**

## Description

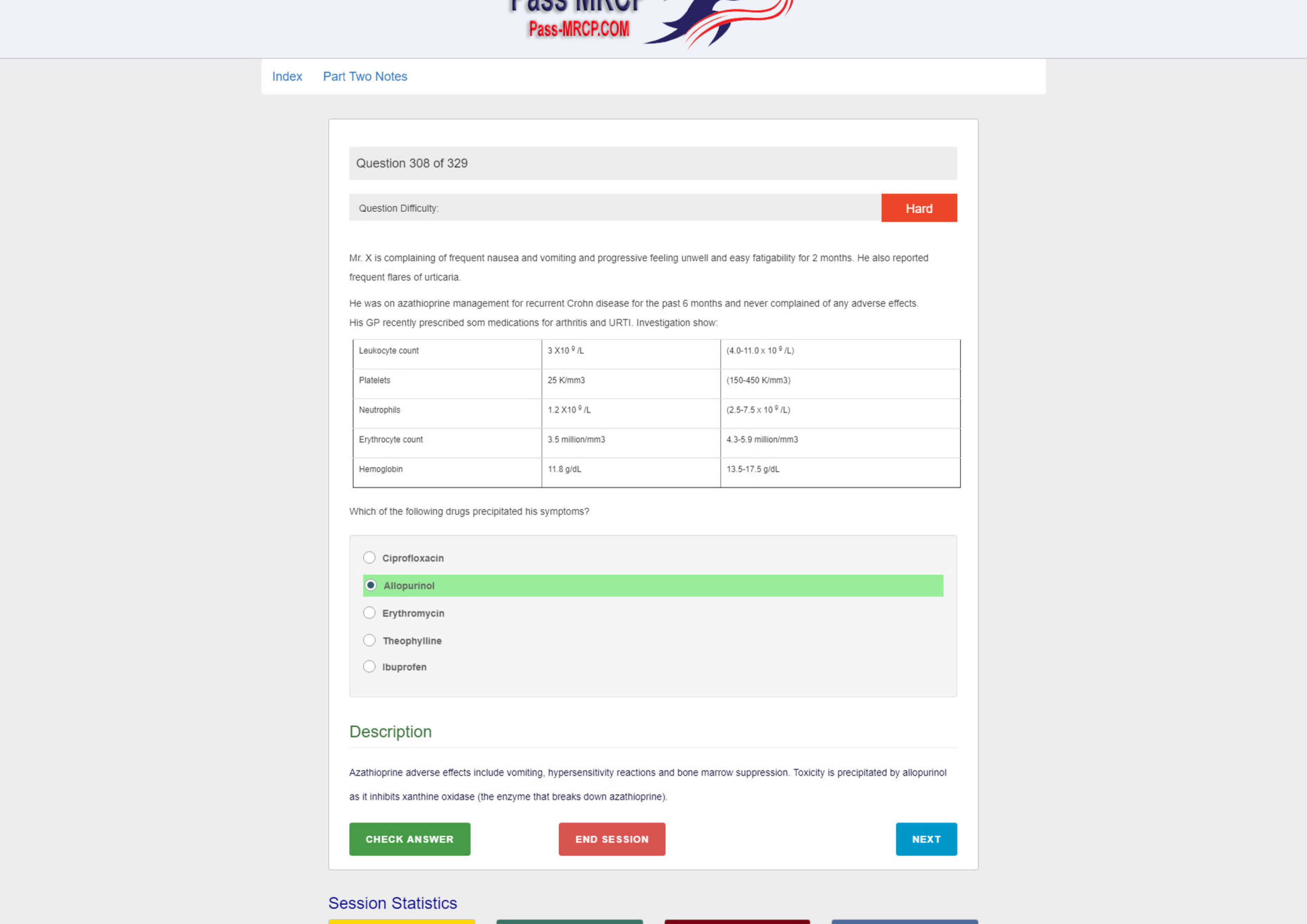
Iron tablets toxicity manifestations:

- Gastric pain
- Nausea and vomiting
- Metabolic acidosis
- Hypovolemic shock
- Internal organs damages as neurological toxicity, renal failure, pulmonary edema and liver failure
- Gastrointestinal strictures is a late complication
- Iron tablets are radiopaque and visualized by plain X-ray
- Death usually occurs from liver failure

CHECK ANSWER END SESSION NEXT

## Session Statistics

**Answered**: 306 ✓ **Correct**: 68 ✕ **Incorrect**: 238 **Average Score**: 22.22 %



Question 308 of 329

Question Difficulty: Hard

Mr. X is complaining of frequent nausea and vomiting and progressive feeling unwell and easy fatigability for 2 months. He also reported frequent flares of urticaria.

He was on azathioprine management for recurrent Crohn disease for the past 6 months and never complained of any adverse effects. His GP recently prescribed som medications for arthritis and URTI. Investigation show:

| | | |
|---|---|---|
| Leukocyte count | 3 X10 $^9$ /L | (4.0-11.0 x 10 $^9$ /L) |
| Platelets | 25 K/mm3 | (150-450 K/mm3) |
| Neutrophils | 1.2 X10 $^9$ /L | (2.5-7.5 x 10 $^9$ /L) |
| Erythrocyte count | 3.5 million/mm3 | 4.3-5.9 million/mm3 |
| Hemoglobin | 11.8 g/dL | 13.5-17.5 g/dL |

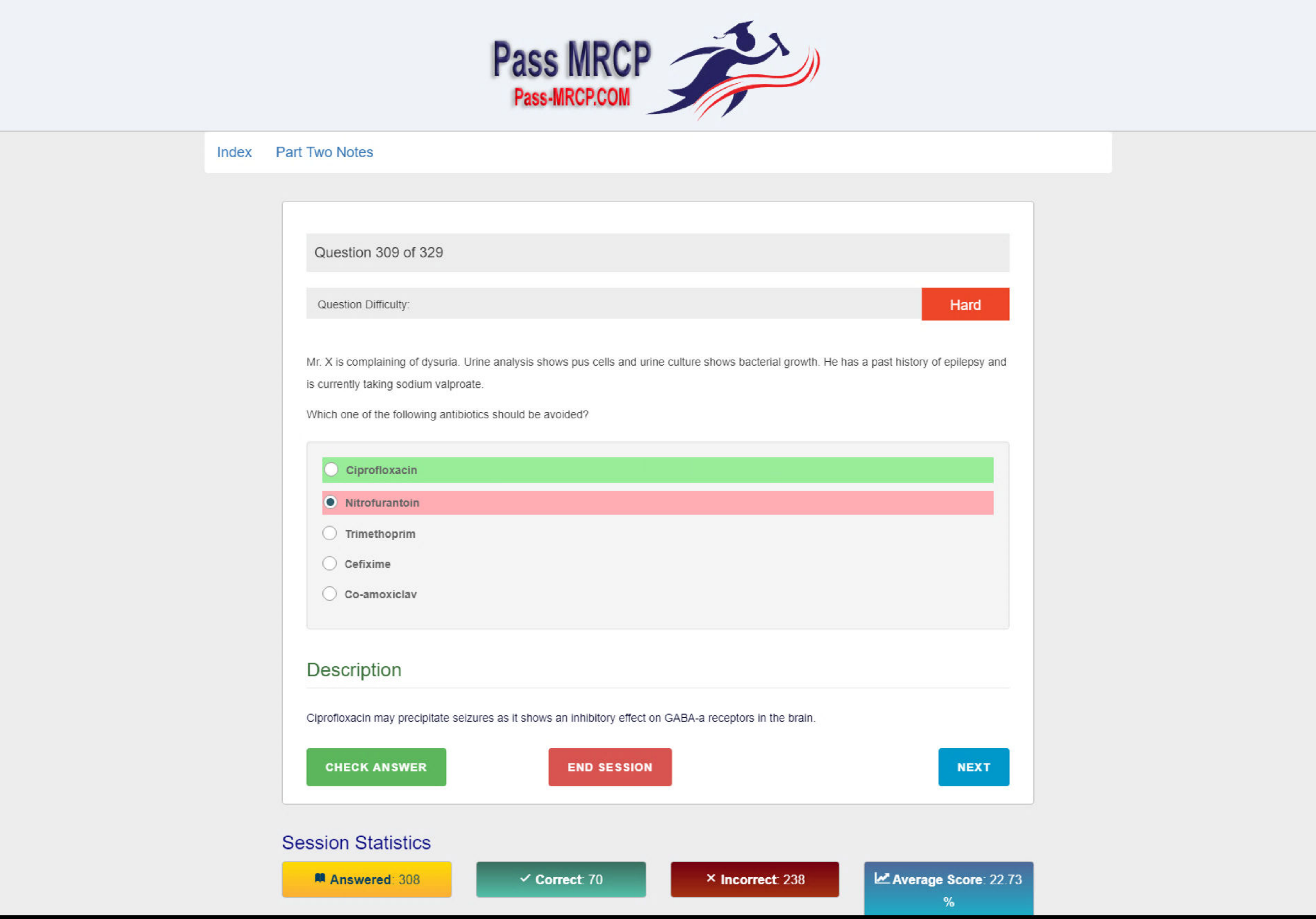
Which of the following drugs precipitated his symptoms?

- ○ **Ciprofloxacin**
- ● **Allopurinol**
- ○ **Erythromycin**
- ○ **Theophylline**
- ○ **Ibuprofen**

## Description

Azathioprine adverse effects include vomiting, hypersensitivity reactions and bone marrow suppression. Toxicity is precipitated by allopurinol as it inhibits xanthine oxidase (the enzyme that breaks down azathioprine).

Session Statistics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Question Difficulty: Hard

Mr. X is complaining of dysuria. Urine analysis shows pus cells and urine culture shows bacterial growth. He has a past history of epilepsy and is currently taking sodium valproate.

Which one of the following antibiotics should be avoided?

○ Ciprofloxacin
● Nitrofurantoin
○ Trimethoprim
○ Cefixime
○ Co-amoxiclav

## Description

Ciprofloxacin may precipitate seizures as it shows an inhibitory effect on GABA-a receptors in the brain.

CHECK ANSWER
END SESSION
NEXT

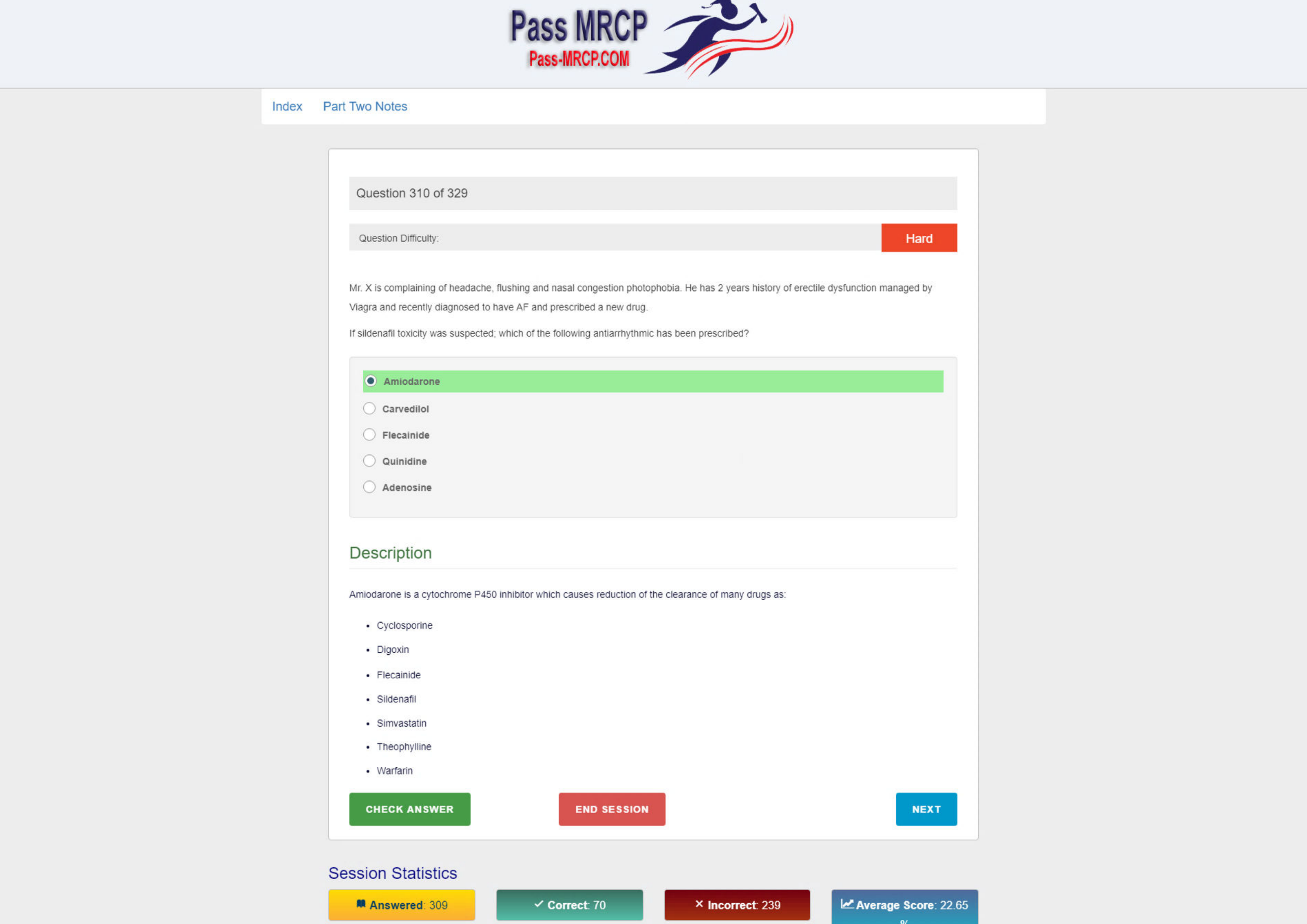
## Session Statistics

Answered: 308

✓ Correct: 70

✕ Incorrect: 238

Average Score: 22.73 %



Question 310 of 329

Question Difficulty: Hard

Mr. X is complaining of headache, flushing and nasal congestion photophobia. He has 2 years history of erectile dysfunction managed by Viagra and recently diagnosed to have AF and prescribed a new drug.

If sildenafil toxicity was suspected; which of the following antiarrhythmic has been prescribed?

● Amiodarone
○ Carvedilol
○ Flecainide
○ Quinidine
○ Adenosine

## Description

Amiodarone is a cytochrome P450 inhibitor which causes reduction of the clearance of many drugs as:

- Cyclosporine
- Digoxin
- Flecainide
- Sildenafil
- Simvastatin
- Theophylline
- Warfarin

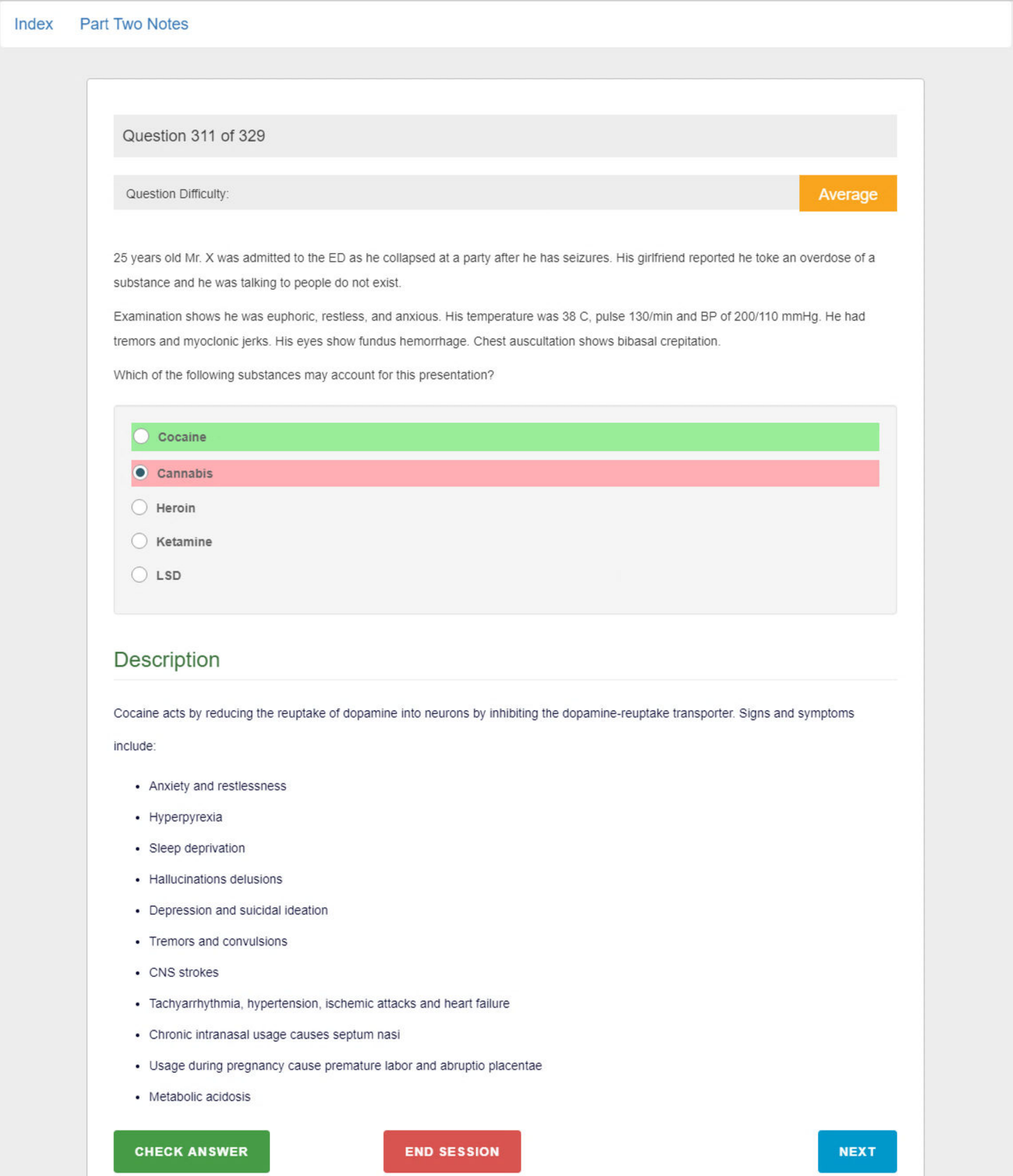
## Session Statistics

Answered: 309

✓ Correct: 70

✕ Incorrect: 239

Average Score: 22.65 %



Question 311 of 329

Question Difficulty: Average

25 years old Mr. X was admitted to the ED as he collapsed at a party after he has seizures. His girlfriend reported he toke an overdose of a substance and he was talking to people do not exist.

Examination shows he was euphoric, restless, and anxious. His temperature was 38 C, pulse 130/min and BP of 200/110 mmHg. He had tremors and myoclonic jerks. His eyes show fundus hemorrhage. Chest auscultation shows bibasal crepitation.

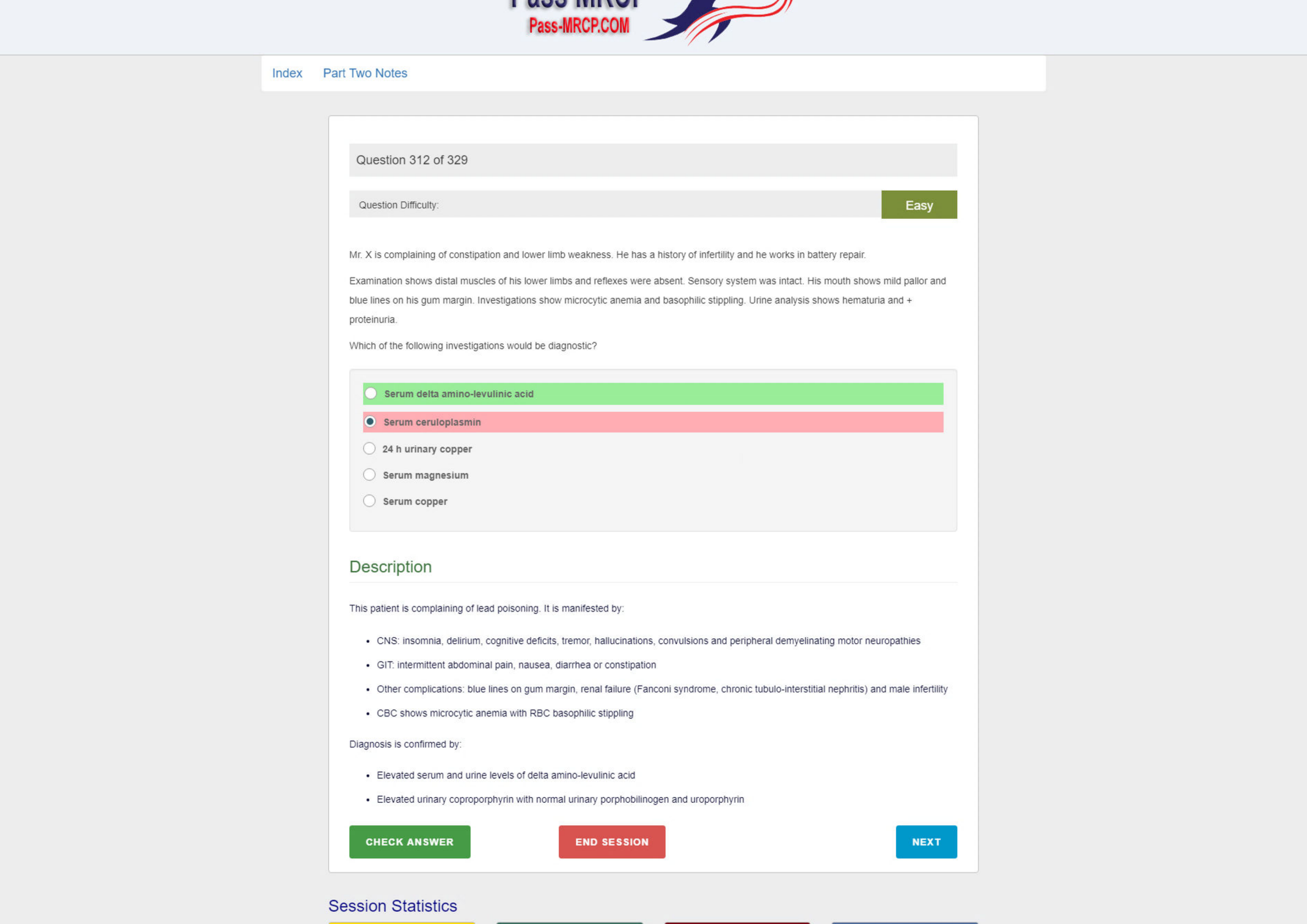
Which of the following substances may account for this presentation?

○ **Cocaine**
● **Cannabis**
○ **Heroin**
○ **Ketamine**
○ **LSD**

## Description

Cocaine acts by reducing the reuptake of dopamine into neurons by inhibiting the dopamine-reuptake transporter. Signs and symptoms include:

- Anxiety and restlessness
- Hyperpyrexia
- Sleep deprivation
- Hallucinations delusions
- Depression and suicidal ideation
- Tremors and convulsions
- CNS strokes
- Tachyarrhythmia, hypertension, ischemic attacks and heart failure
- Chronic intranasal usage causes septum nasi
- Usage during pregnancy cause premature labor and abruptio placentae
- Metabolic acidosis



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Question Difficulty: **Easy**

Mr. X is complaining of constipation and lower limb weakness. He has a history of infertility and he works in battery repair.

Examination shows distal muscles of his lower limbs and reflexes were absent. Sensory system was intact. His mouth shows mild pallor and blue lines on his gum margin. Investigations show microcytic anemia and basophilic stippling. Urine analysis shows hematuria and + proteinuria.

Which of the following investigations would be diagnostic?

○ **Serum delta amino-levulinic acid** 🟩

● **Serum ceruloplasmin** 🟥

○ **24 h urinary copper**

○ **Serum magnesium**

○ **Serum copper**

## Description

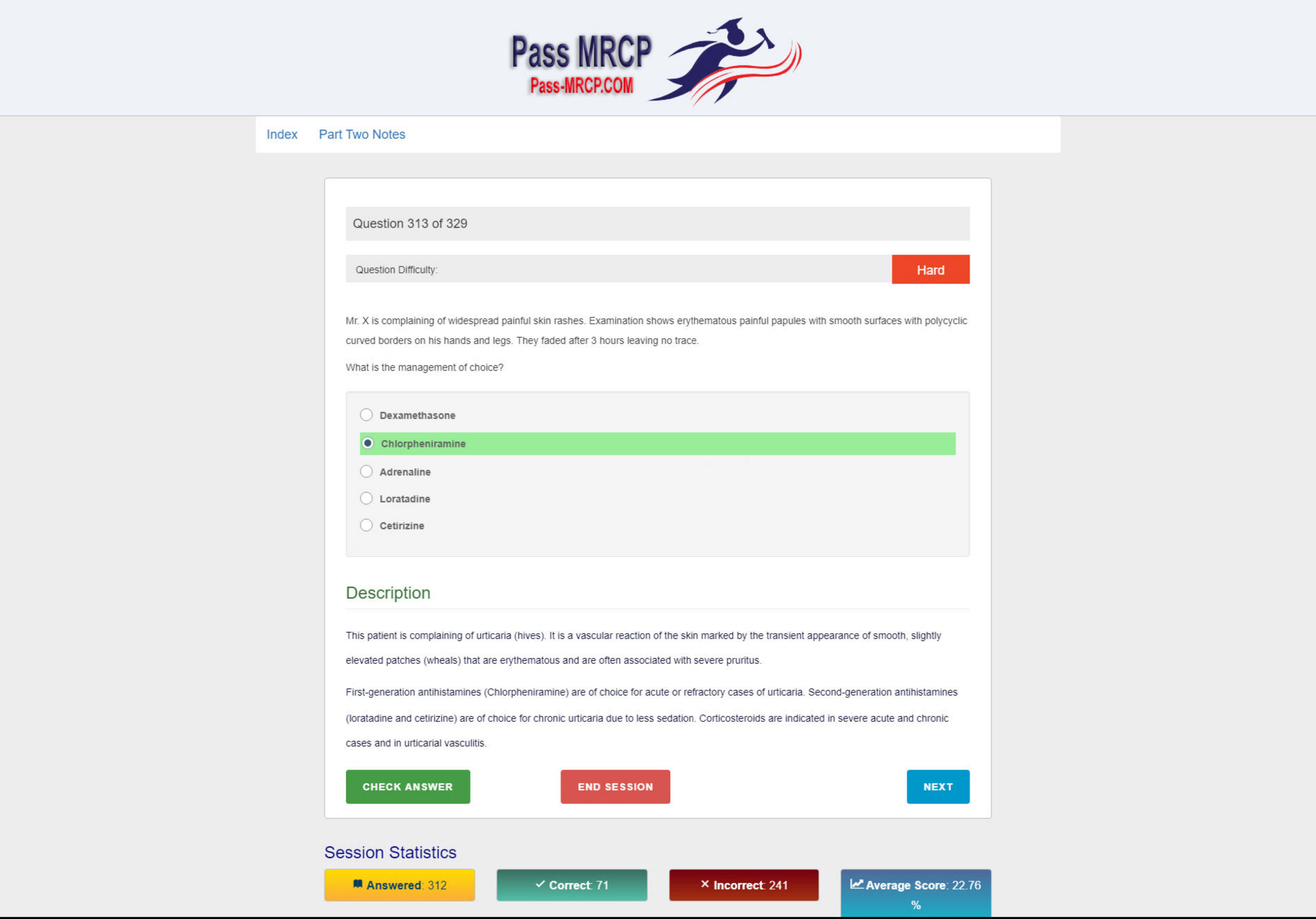
This patient is complaining of lead poisoning. It is manifested by:

- CNS: insomnia, delirium, cognitive deficits, tremor, hallucinations, convulsions and peripheral demyelinating motor neuropathies
- GIT: intermittent abdominal pain, nausea, diarrhea or constipation
- Other complications: blue lines on gum margin, renal failure (Fanconi syndrome, chronic tubulo-interstitial nephritis) and male infertility
- CBC shows microcytic anemia with RBC basophilic stippling

Diagnosis is confirmed by:

- Elevated serum and urine levels of delta amino-levulinic acid
- Elevated urinary coproporphyrin with normal urinary porphobilinogen and uroporphyrin

Session Statistics



Question 313 of 329

Question Difficulty: Hard

Mr. X is complaining of widespread painful skin rashes. Examination shows erythematous painful papules with smooth surfaces with polycyclic curved borders on his hands and legs. They faded after 3 hours leaving no trace.

What is the management of choice?

○ **Dexamethasone**
● **Chlorpheniramine**
○ **Adrenaline**
○ **Loratadine**
○ **Cetirizine**

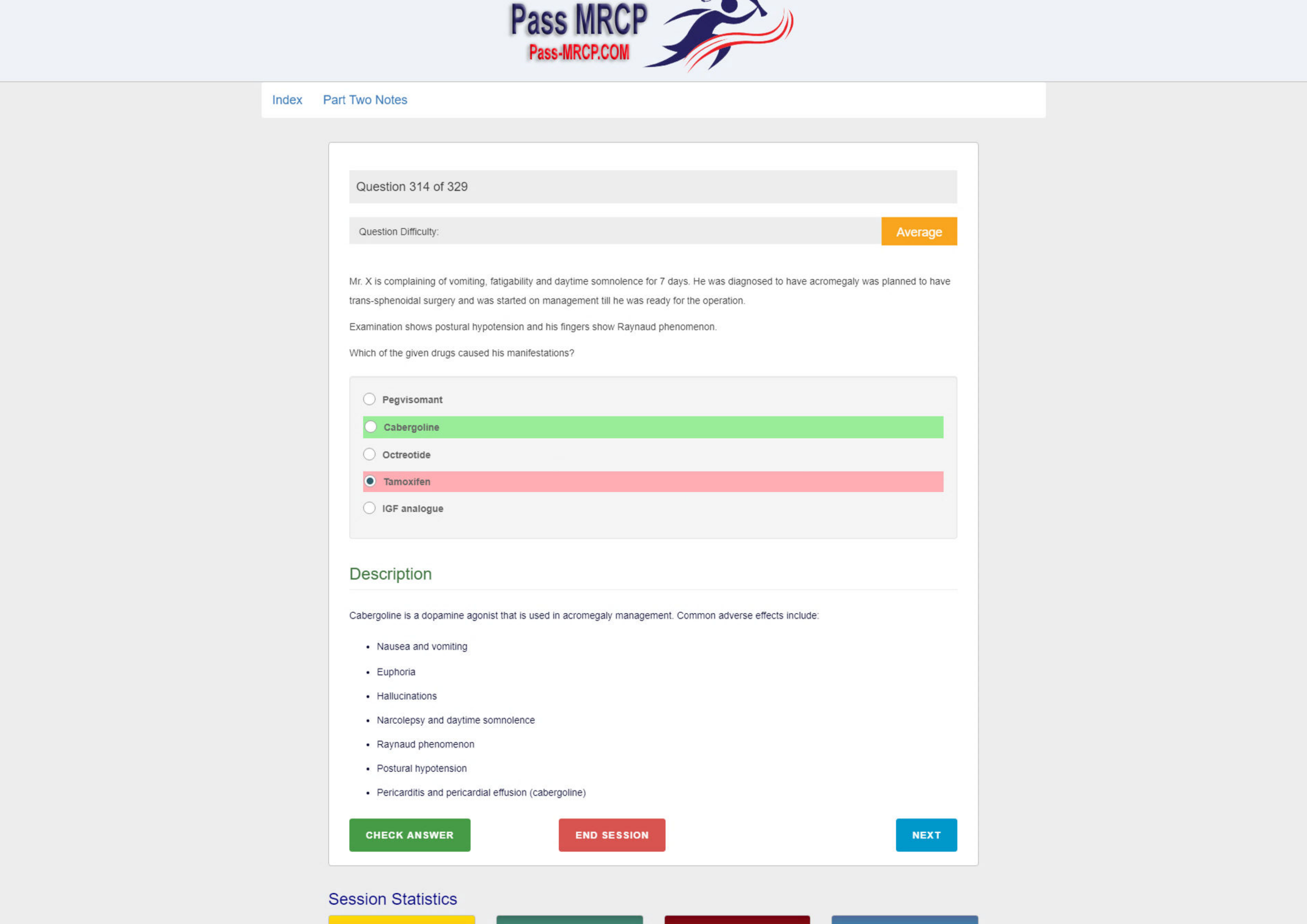
## Description

This patient is complaining of urticaria (hives). It is a vascular reaction of the skin marked by the transient appearance of smooth, slightly elevated patches (wheals) that are erythematous and are often associated with severe pruritus.

First-generation antihistamines (Chlorpheniramine) are of choice for acute or refractory cases of urticaria. Second-generation antihistamines (loratadine and cetirizine) are of choice for chronic urticaria due to less sedation. Corticosteroids are indicated in severe acute and chronic cases and in urticarial vasculitis.

Session Statistics

**Answered**: 312
✓ **Correct**: 71
✕ **Incorrect**: 241
**Average Score**: 22.76 %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Question Difficulty: Average

Mr. X is complaining of vomiting, fatigability and daytime somnolence for 7 days. He was diagnosed to have acromegaly was planned to have trans-sphenoidal surgery and was started on management till he was ready for the operation.

Examination shows postural hypotension and his fingers show Raynaud phenomenon.

Which of the given drugs caused his manifestations?

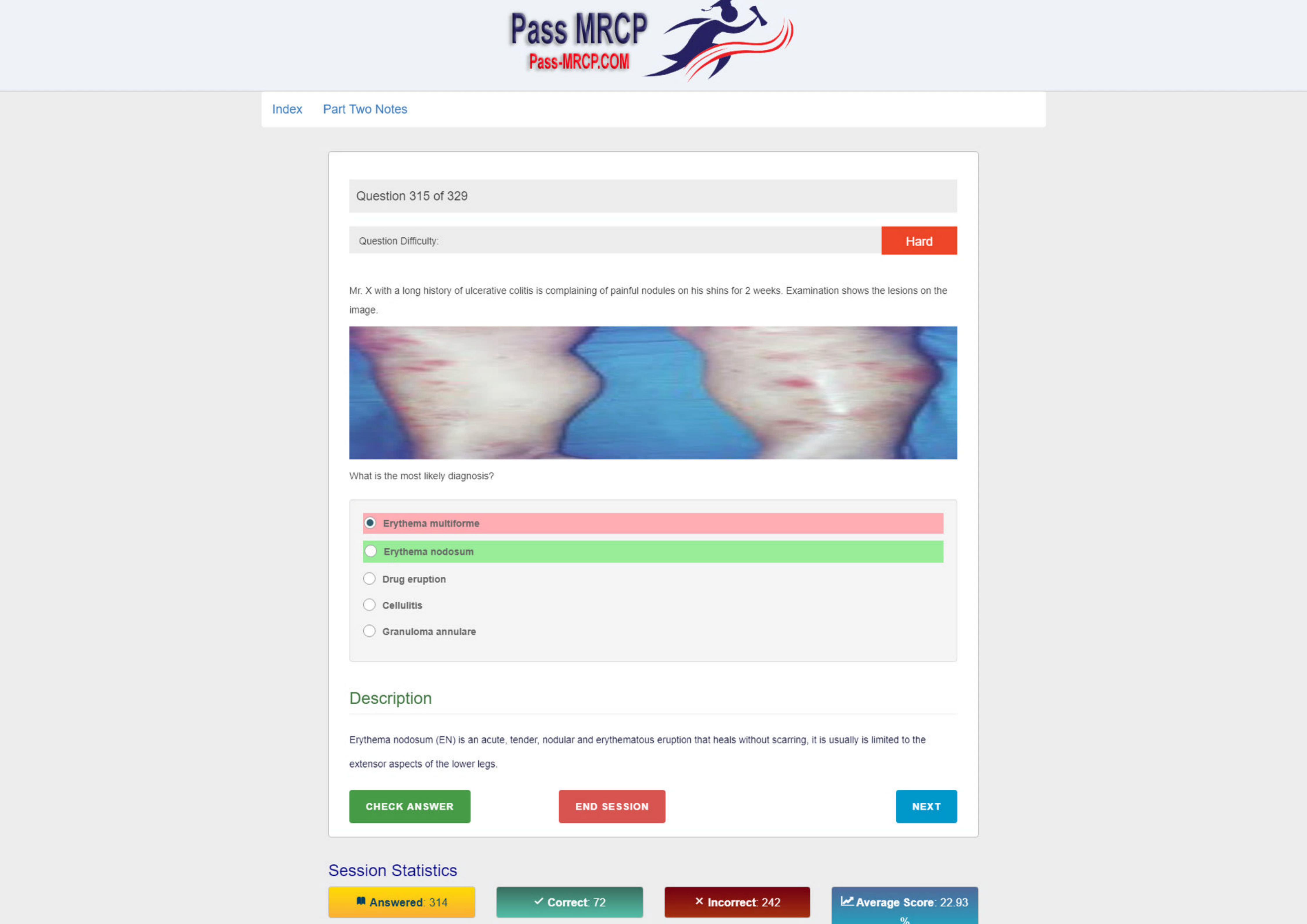
○ Pegvisomant
○ Cabergoline
○ Octreotide
● Tamoxifen
○ IGF analogue

## Description

Cabergoline is a dopamine agonist that is used in acromegaly management. Common adverse effects include:

- Nausea and vomiting
- Euphoria
- Hallucinations
- Narcolepsy and daytime somnolence
- Raynaud phenomenon
- Postural hypotension
- Pericarditis and pericardial effusion (cabergoline)

CHECK ANSWER
END SESSION
NEXT
Session Statistics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Question 315 of 329

Question Difficulty: Hard

Mr. X with a long history of ulcerative colitis is complaining of painful nodules on his shins for 2 weeks. Examination shows the lesions on the image.

What is the most likely diagnosis?

- ● Erythema multiforme
- ○ Erythema nodosum
- ○ Drug eruption
- ○ Cellulitis
- ○ Granuloma annulare

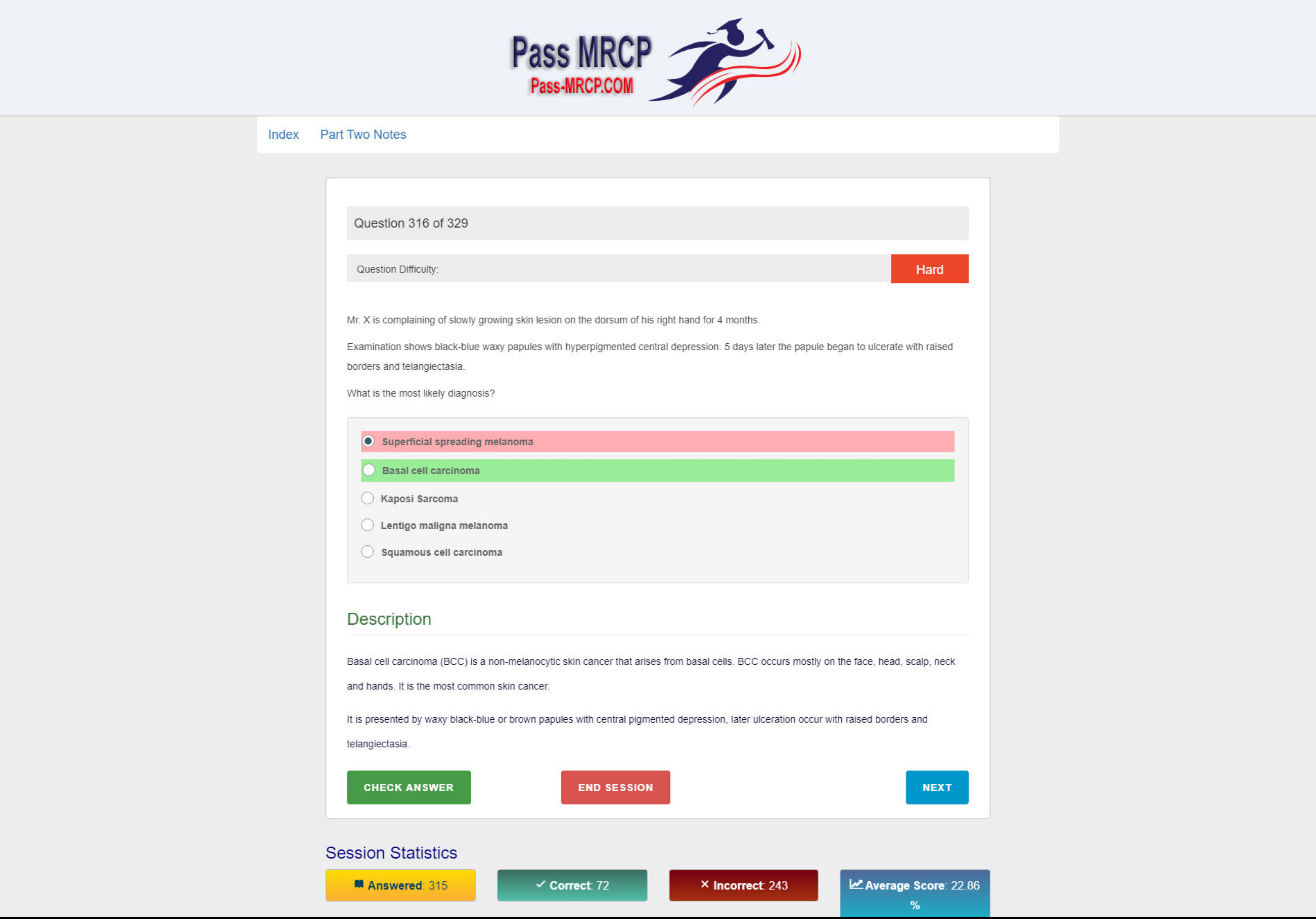
## Description

Erythema nodosum (EN) is an acute, tender, nodular and erythematous eruption that heals without scarring, it is usually is limited to the extensor aspects of the lower legs.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 314
✓ Correct: 72
✕ Incorrect: 242
Average Score: 22.93 %



Question 316 of 329

Question Difficulty: Hard

Mr. X is complaining of slowly growing skin lesion on the dorsum of his right hand for 4 months.

Examination shows black-blue waxy papules with hyperpigmented central depression. 5 days later the papule began to ulcerate with raised borders and telangiectasia.

What is the most likely diagnosis?

- ● Superficial spreading melanoma
- ○ Basal cell carcinoma
- ○ Kaposi Sarcoma
- ○ Lentigo maligna melanoma
- ○ Squamous cell carcinoma

## Description

Basal cell carcinoma (BCC) is a non-melanocytic skin cancer that arises from basal cells. BCC occurs mostly on the face, head, scalp, neck and hands. It is the most common skin cancer.

It is presented by waxy black-blue or brown papules with central pigmented depression, later ulceration occur with raised borders and telangiectasia.

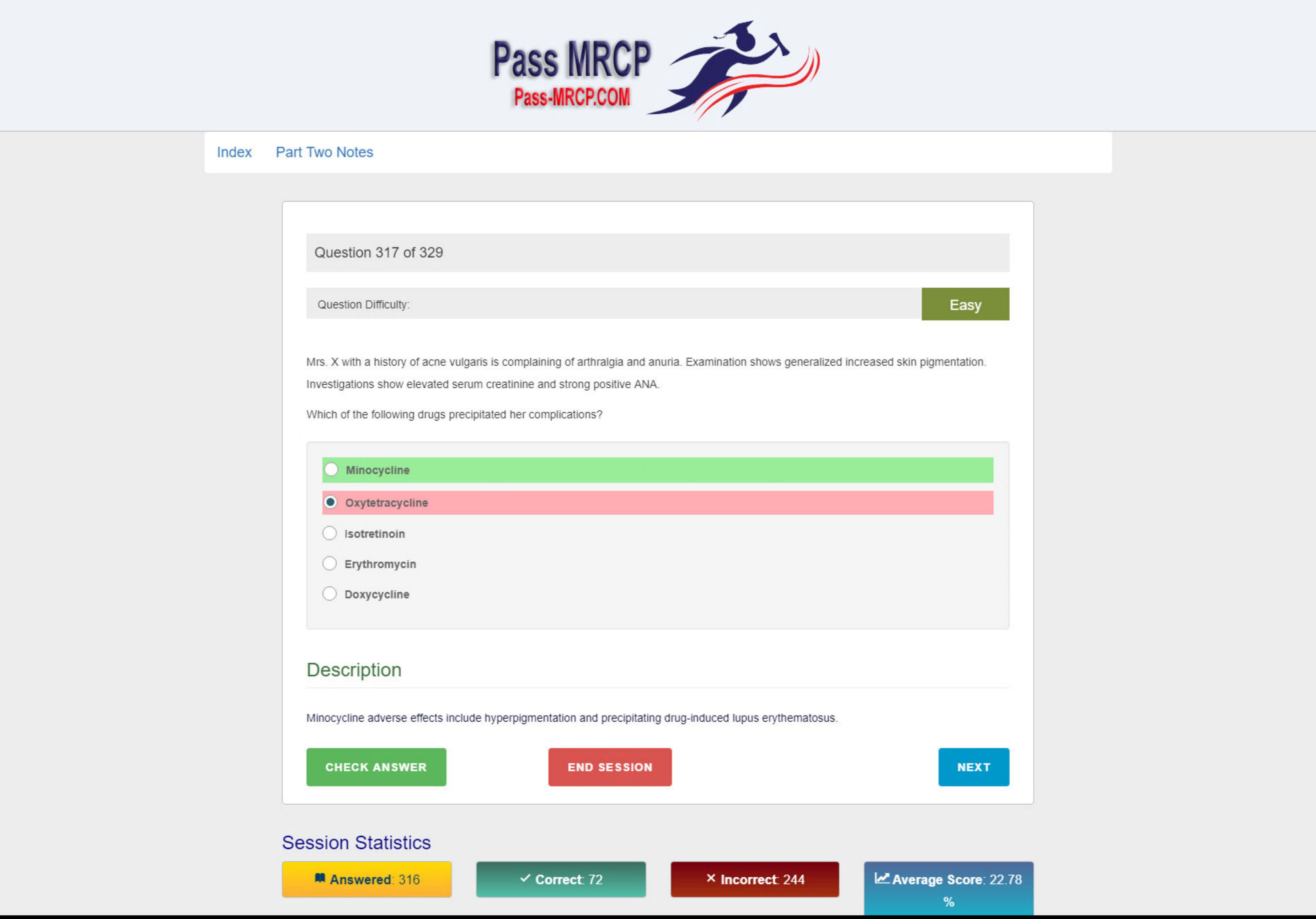
Session Statistics

Answered: 315

✓ Correct: 72

✕ Incorrect: 243

Average Score: 22.86 %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Question Difficulty: Easy

Mrs. X with a history of acne vulgaris is complaining of arthralgia and anuria. Examination shows generalized increased skin pigmentation. Investigations show elevated serum creatinine and strong positive ANA.

Which of the following drugs precipitated her complications?

- ○ **Minocycline**
- ● **Oxytetracycline**
- ○ **Isotretinoin**
- ○ **Erythromycin**
- ○ **Doxycycline**

## Description

Minocycline adverse effects include hyperpigmentation and precipitating drug-induced lupus erythematosus.

CHECK ANSWER
END SESSION
NEXT

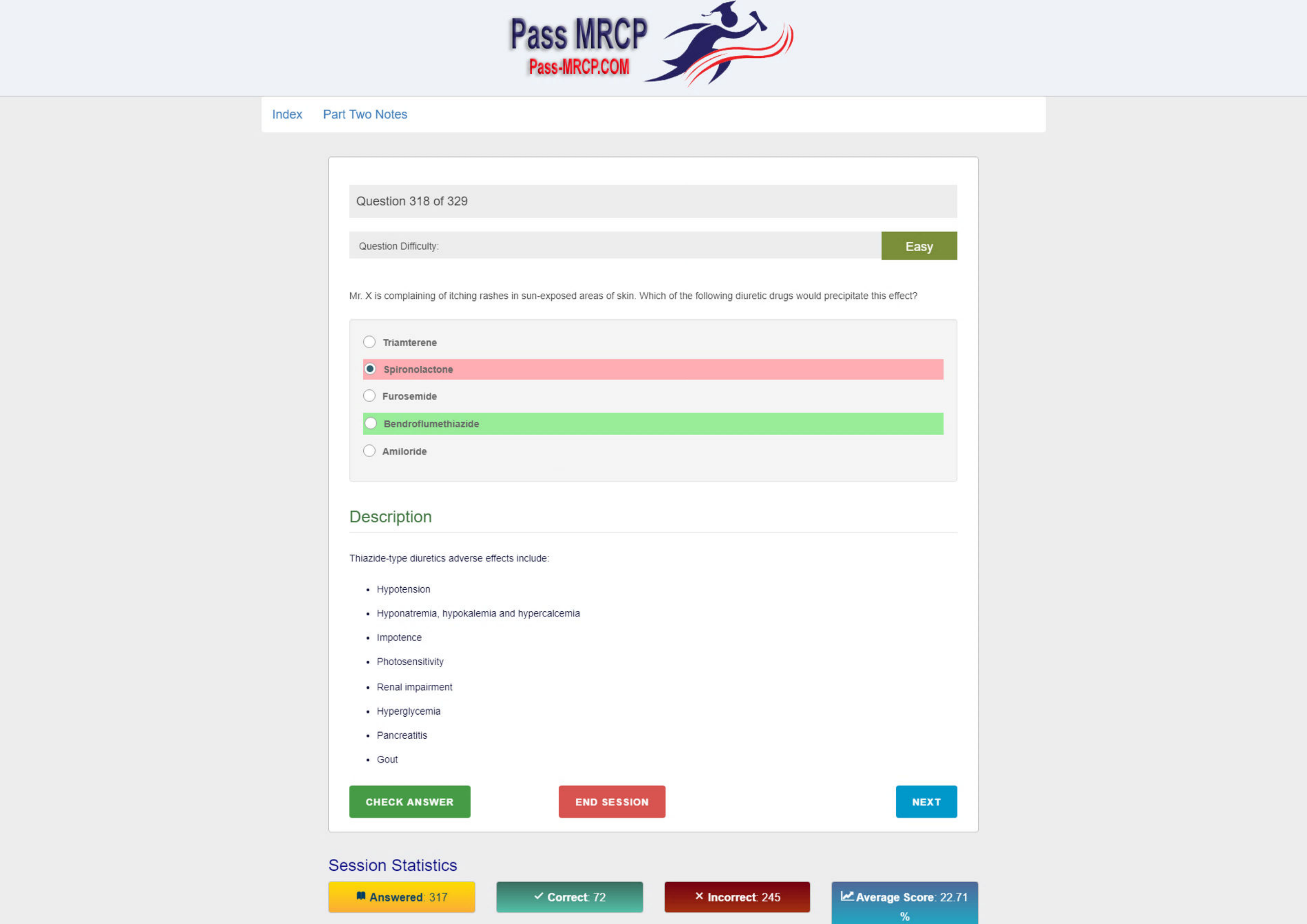
## Session Statistics

**Answered**: 316

✓ **Correct**: 72

✕ **Incorrect**: 244

**Average Score**: 22.78 %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Question Difficulty: Easy

Mr. X is complaining of itching rashes in sun-exposed areas of skin. Which of the following diuretic drugs would precipitate this effect?

○ **Triamterene**
● **Spironolactone**
○ **Furosemide**
○ **Bendroflumethiazide**
○ **Amiloride**

## Description

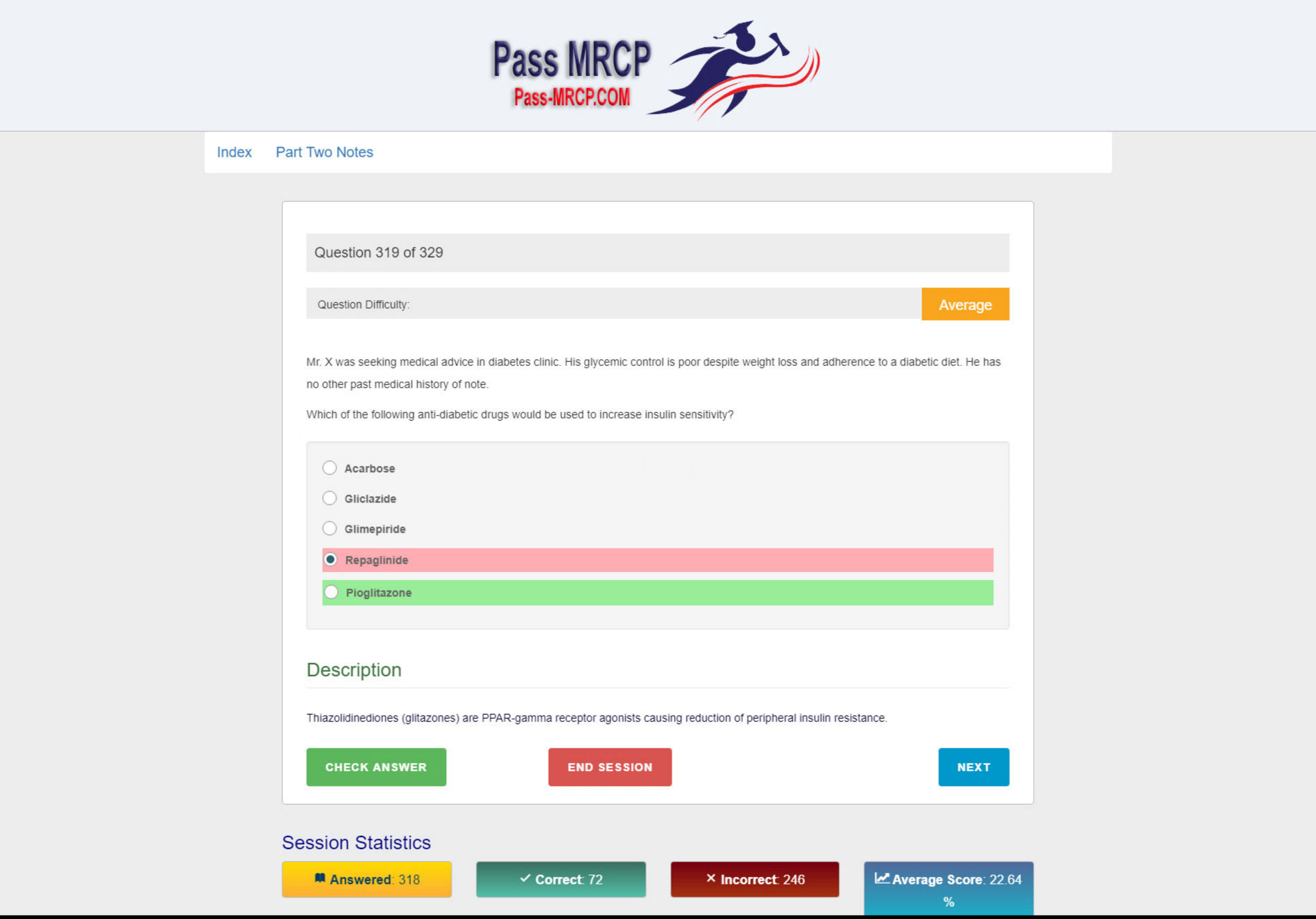
Thiazide-type diuretics adverse effects include:

- Hypotension
- Hyponatremia, hypokalemia and hypercalcemia
- Impotence
- Photosensitivity
- Renal impairment
- Hyperglycemia
- Pancreatitis
- Gout

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

**Answered**: 317
✓ **Correct**: 72
✕ **Incorrect**: 245
**Average Score**: 22.71 %



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Question Difficulty: Average

Mr. X was seeking medical advice in diabetes clinic. His glycemic control is poor despite weight loss and adherence to a diabetic diet. He has no other past medical history of note.

Which of the following anti-diabetic drugs would be used to increase insulin sensitivity?

- ○ Acarbose
- ○ Gliclazide
- ○ Glimepiride
- ● Repaglinide
- ○ Pioglitazone

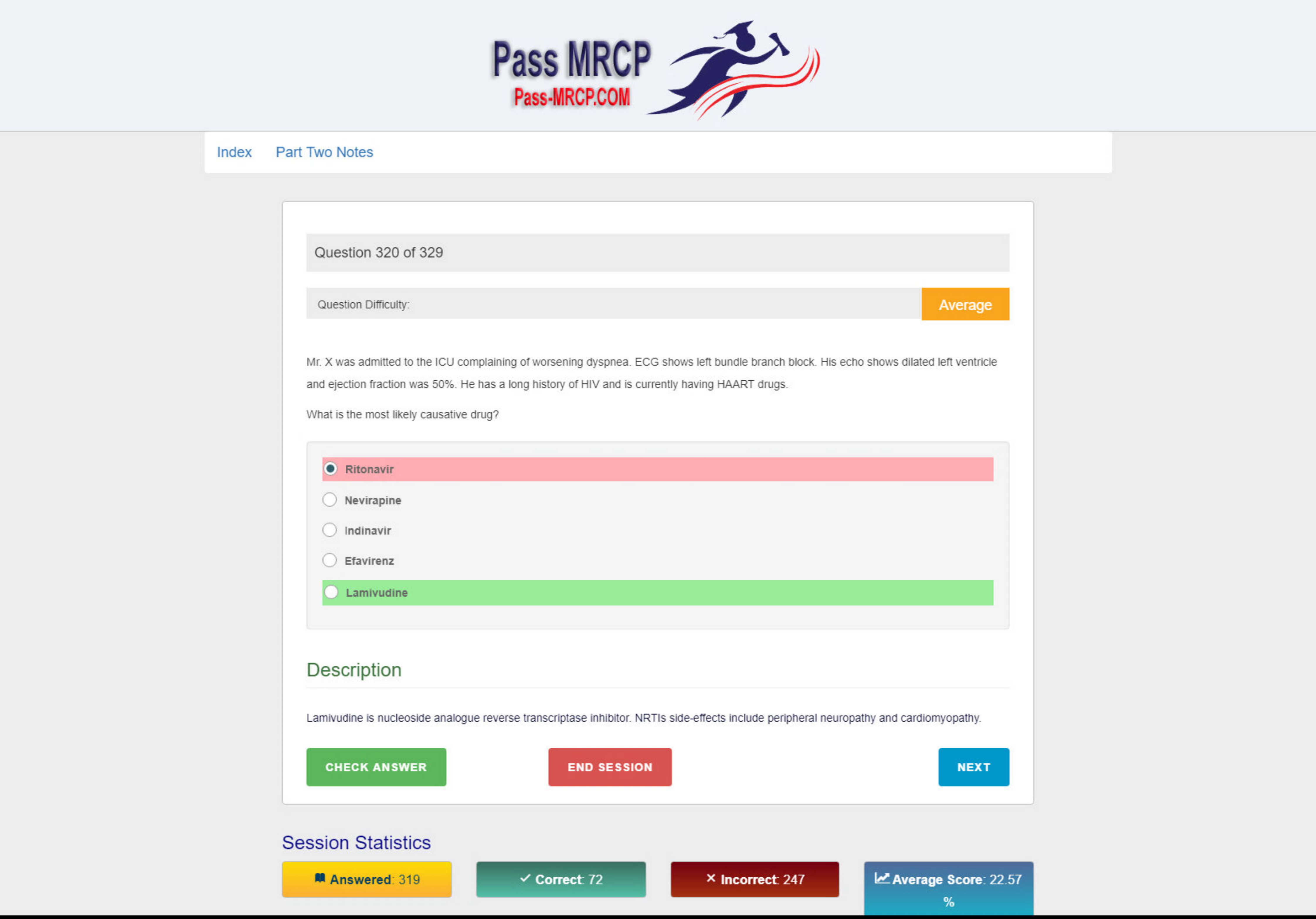
## Description

Thiazolidinediones (glitazones) are PPAR-gamma receptor agonists causing reduction of peripheral insulin resistance.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 318
✓ Correct: 72
✕ Incorrect: 246
Average Score: 22.64 %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Question 320 of 329

Question Difficulty: Average

Mr. X was admitted to the ICU complaining of worsening dyspnea. ECG shows left bundle branch block. His echo shows dilated left ventricle and ejection fraction was 50%. He has a long history of HIV and is currently having HAART drugs.

What is the most likely causative drug?

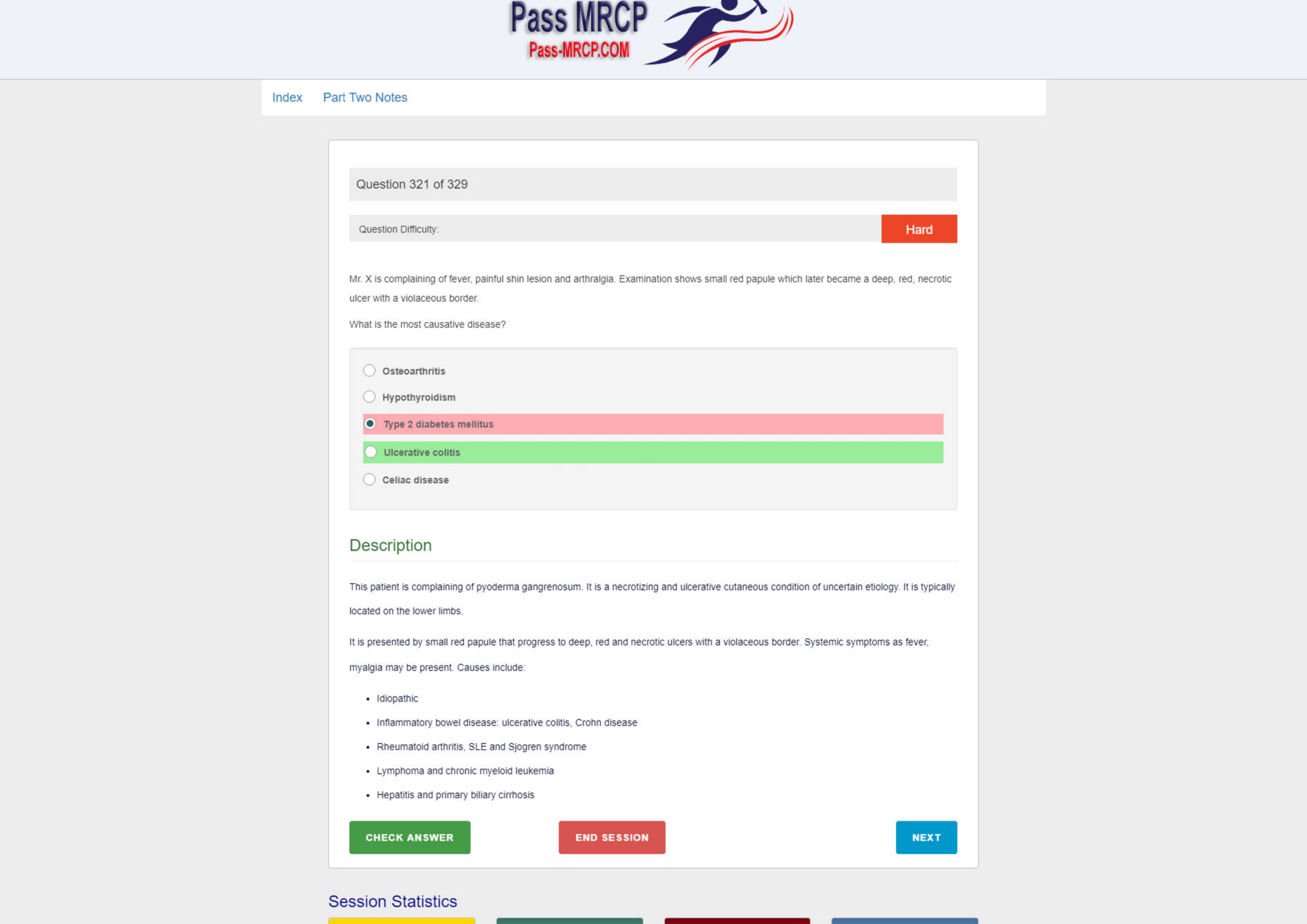
● Ritonavir
○ Nevirapine
○ Indinavir
○ Efavirenz
○ Lamivudine

## Description

Lamivudine is nucleoside analogue reverse transcriptase inhibitor. NRTIs side-effects include peripheral neuropathy and cardiomyopathy.

## Session Statistics

**Answered**: 319
✓ **Correct**: 72
✕ **Incorrect**: 247
**Average Score**: 22.57 %



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Question Difficulty: Hard

Mr. X is complaining of fever, painful shin lesion and arthralgia. Examination shows small red papule which later became a deep, red, necrotic ulcer with a violaceous border.

What is the most causative disease?

○ **Osteoarthritis**
○ **Hypothyroidism**
● **Type 2 diabetes mellitus**
○ **Ulcerative colitis**
○ **Celiac disease**

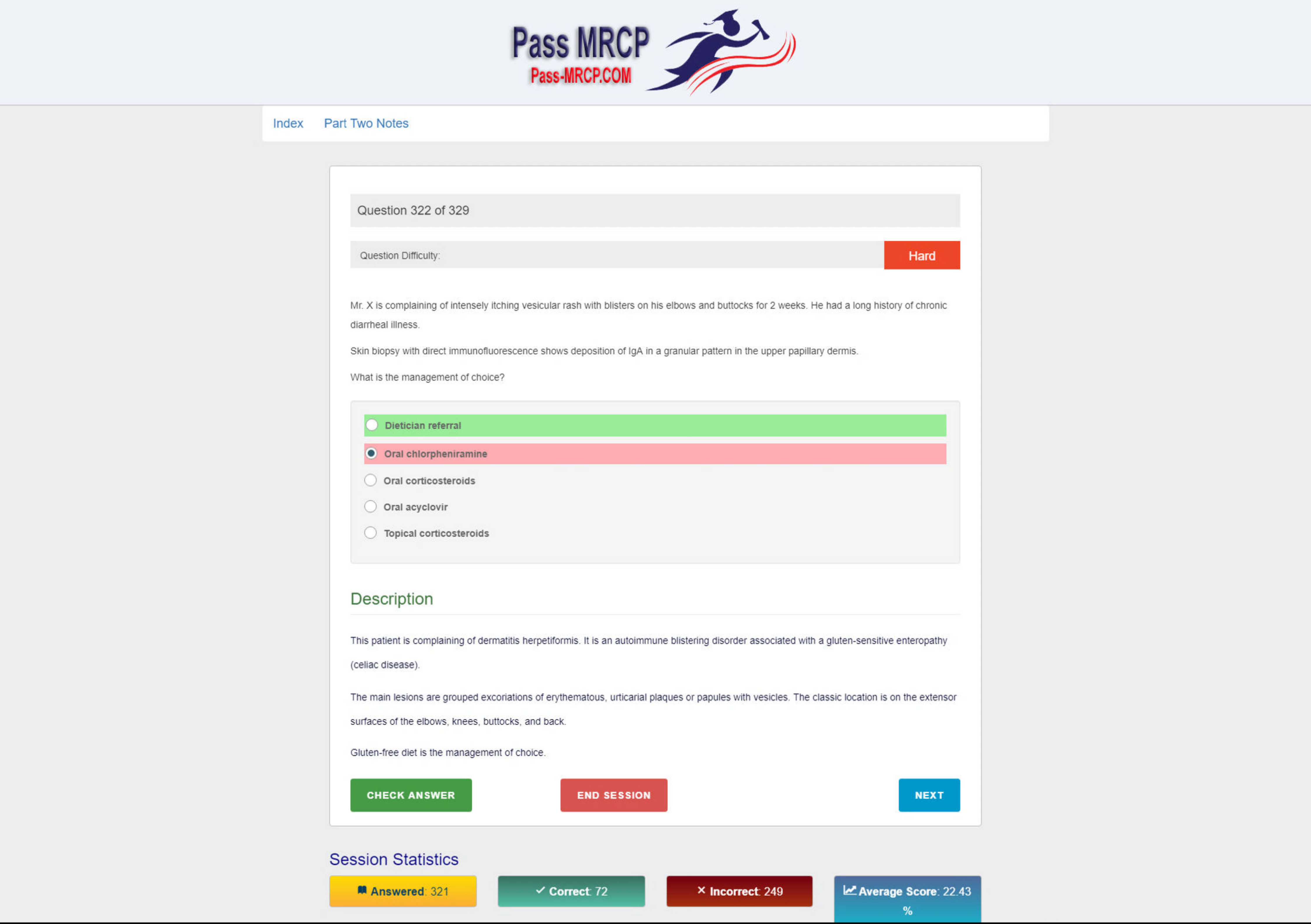
## Description

This patient is complaining of pyoderma gangrenosum. It is a necrotizing and ulcerative cutaneous condition of uncertain etiology. It is typically located on the lower limbs.

It is presented by small red papule that progress to deep, red and necrotic ulcers with a violaceous border. Systemic symptoms as fever, myalgia may be present. Causes include:

- Idiopathic
- Inflammatory bowel disease: ulcerative colitis, Crohn disease
- Rheumatoid arthritis, SLE and Sjogren syndrome
- Lymphoma and chronic myeloid leukemia
- Hepatitis and primary biliary cirrhosis

Session Statistics



Question 322 of 329

Question Difficulty: Hard

Mr. X is complaining of intensely itching vesicular rash with blisters on his elbows and buttocks for 2 weeks. He had a long history of chronic diarrheal illness.

Skin biopsy with direct immunofluorescence shows deposition of IgA in a granular pattern in the upper papillary dermis.

What is the management of choice?

○ Dietician referral
● Oral chlorpheniramine
○ Oral corticosteroids
○ Oral acyclovir
○ Topical corticosteroids

## Description

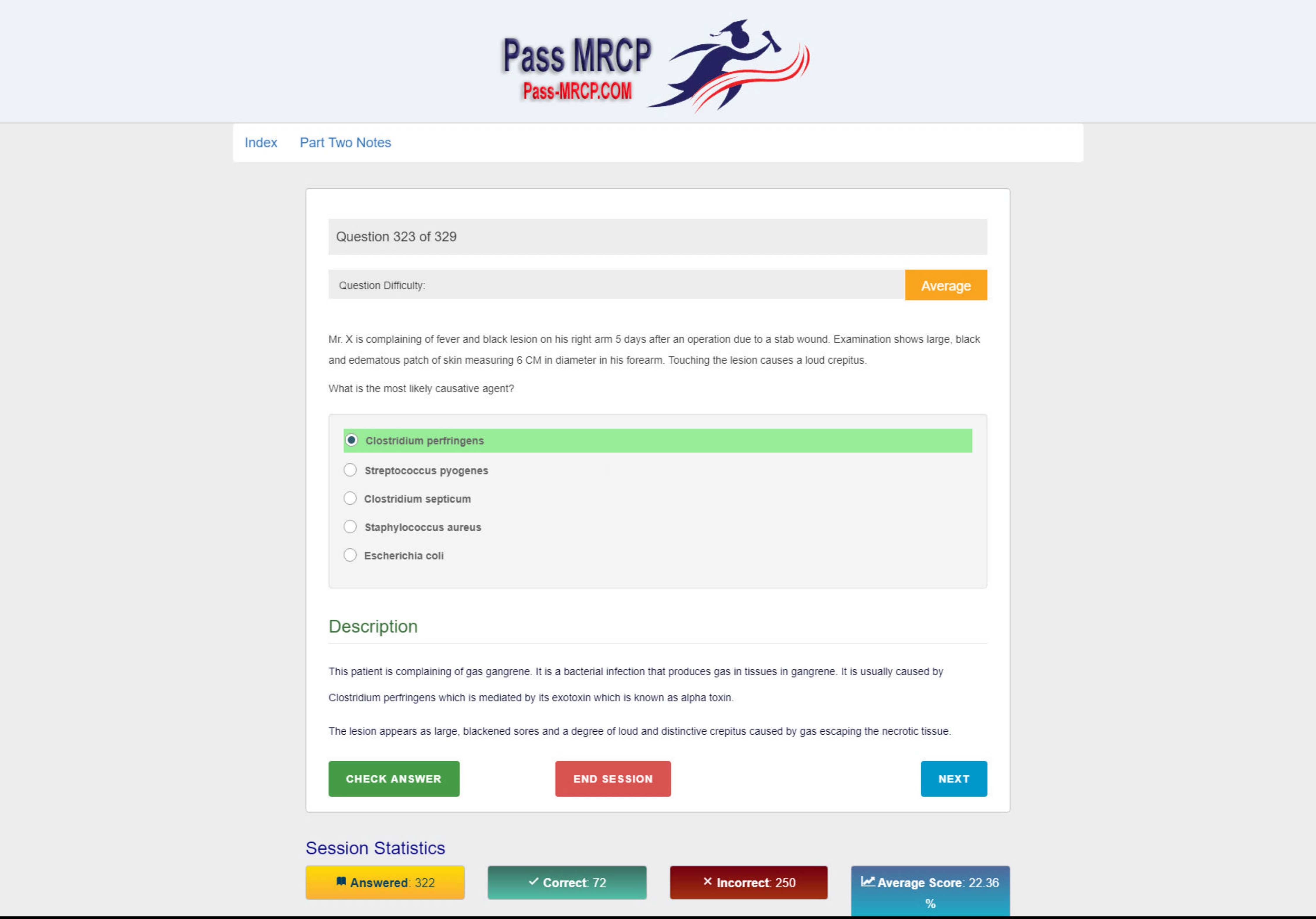
This patient is complaining of dermatitis herpetiformis. It is an autoimmune blistering disorder associated with a gluten-sensitive enteropathy (celiac disease).

The main lesions are grouped excoriations of erythematous, urticarial plaques or papules with vesicles. The classic location is on the extensor surfaces of the elbows, knees, buttocks, and back.

Gluten-free diet is the management of choice.

Session Statistics

Answered: 321
✓ Correct: 72
✕ Incorrect: 249
Average Score: 22.43 %



Question 323 of 329

Question Difficulty: **Average**

Mr. X is complaining of fever and black lesion on his right arm 5 days after an operation due to a stab wound. Examination shows large, black and edematous patch of skin measuring 6 CM in diameter in his forearm. Touching the lesion causes a loud crepitus.

What is the most likely causative agent?

- ● **Clostridium perfringens**
- ○ **Streptococcus pyogenes**
- ○ **Clostridium septicum**
- ○ **Staphylococcus aureus**
- ○ **Escherichia coli**

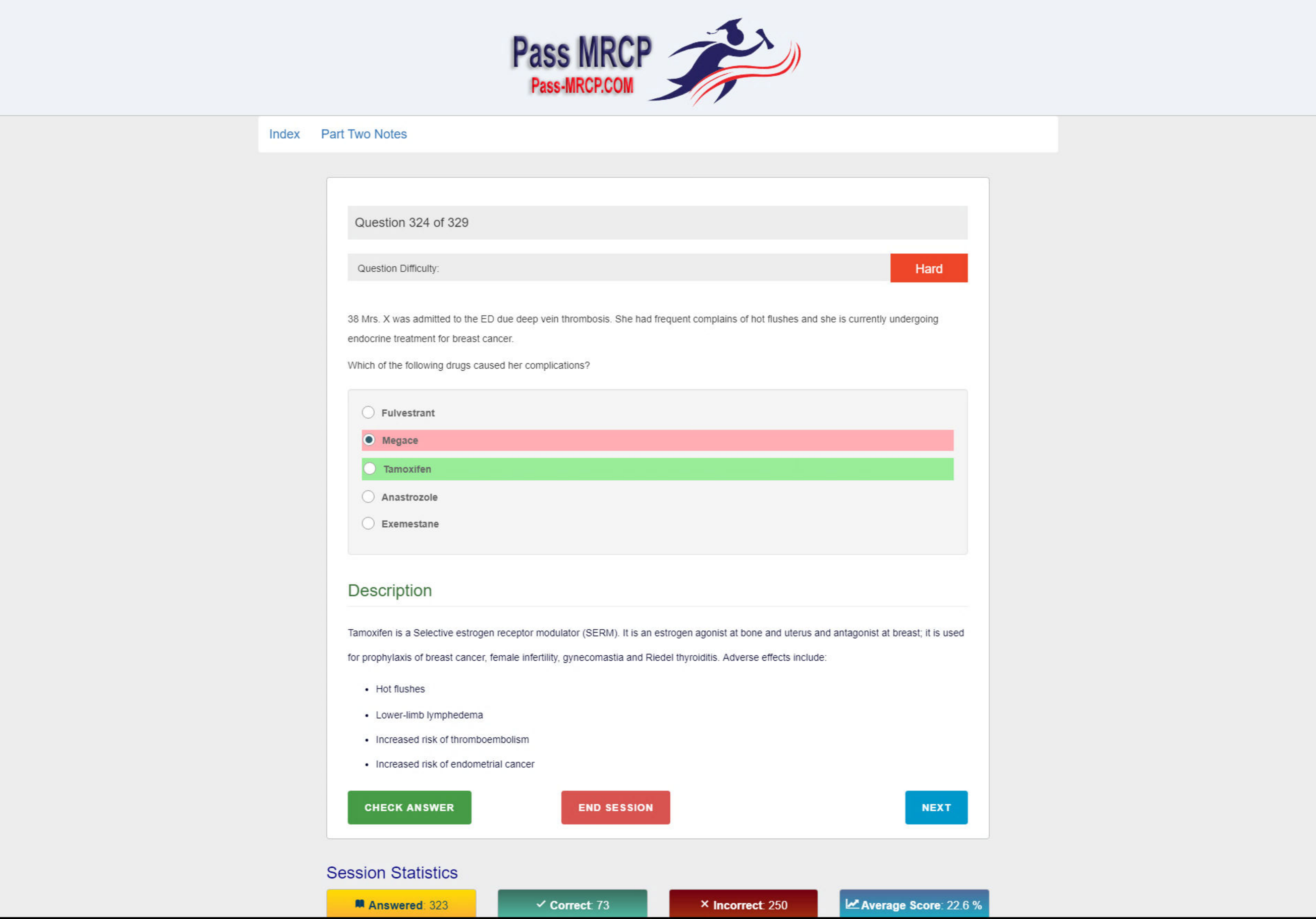
## Description

This patient is complaining of gas gangrene. It is a bacterial infection that produces gas in tissues in gangrene. It is usually caused by Clostridium perfringens which is mediated by its exotoxin which is known as alpha toxin.

The lesion appears as large, blackened sores and a degree of loud and distinctive crepitus caused by gas escaping the necrotic tissue.

## Session Statistics

**Answered**: 322
✓ **Correct**: 72
✕ **Incorrect**: 250
**Average Score**: 22.36 %



Question 324 of 329

Question Difficulty: Hard

38 Mrs. X was admitted to the ED due deep vein thrombosis. She had frequent complains of hot flushes and she is currently undergoing endocrine treatment for breast cancer.

Which of the following drugs caused her complications?

○ Fulvestrant
● Megace
○ Tamoxifen
○ Anastrozole
○ Exemestane

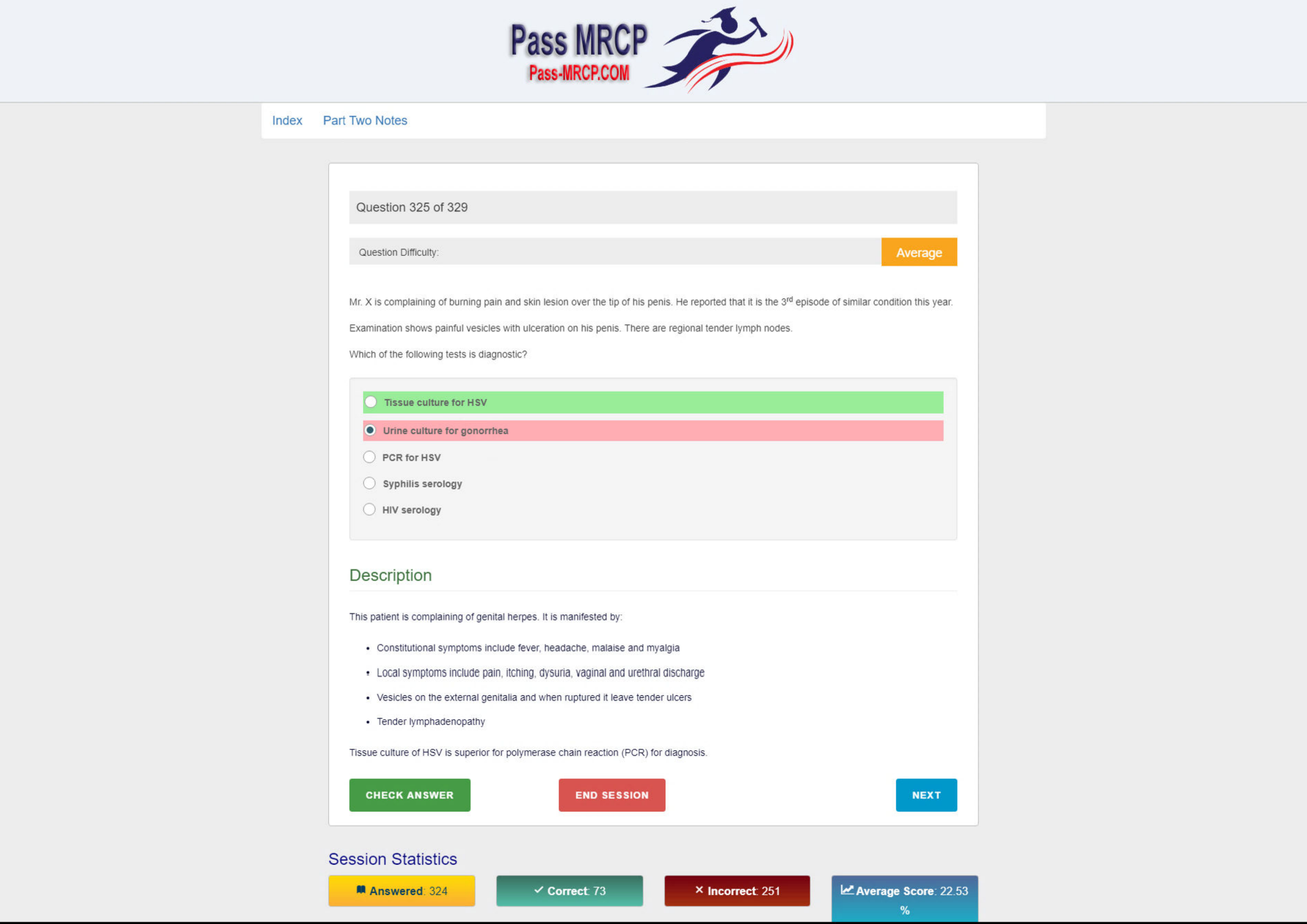
## Description

Tamoxifen is a Selective estrogen receptor modulator (SERM). It is an estrogen agonist at bone and uterus and antagonist at breast; it is used for prophylaxis of breast cancer, female infertility, gynecomastia and Riedel thyroiditis. Adverse effects include:

- Hot flushes
- Lower-limb lymphedema
- Increased risk of thromboembolism
- Increased risk of endometrial cancer

## Session Statistics

Answered: 323
✓ Correct: 73
✕ Incorrect: 250
Average Score: 22.6 %



Question 325 of 329

Question Difficulty: Average

Mr. X is complaining of burning pain and skin lesion over the tip of his penis. He reported that it is the 3rd episode of similar condition this year.

Examination shows painful vesicles with ulceration on his penis. There are regional tender lymph nodes.

Which of the following tests is diagnostic?

○ **Tissue culture for HSV**
● **Urine culture for gonorrhea**
○ **PCR for HSV**
○ **Syphilis serology**
○ **HIV serology**

## Description

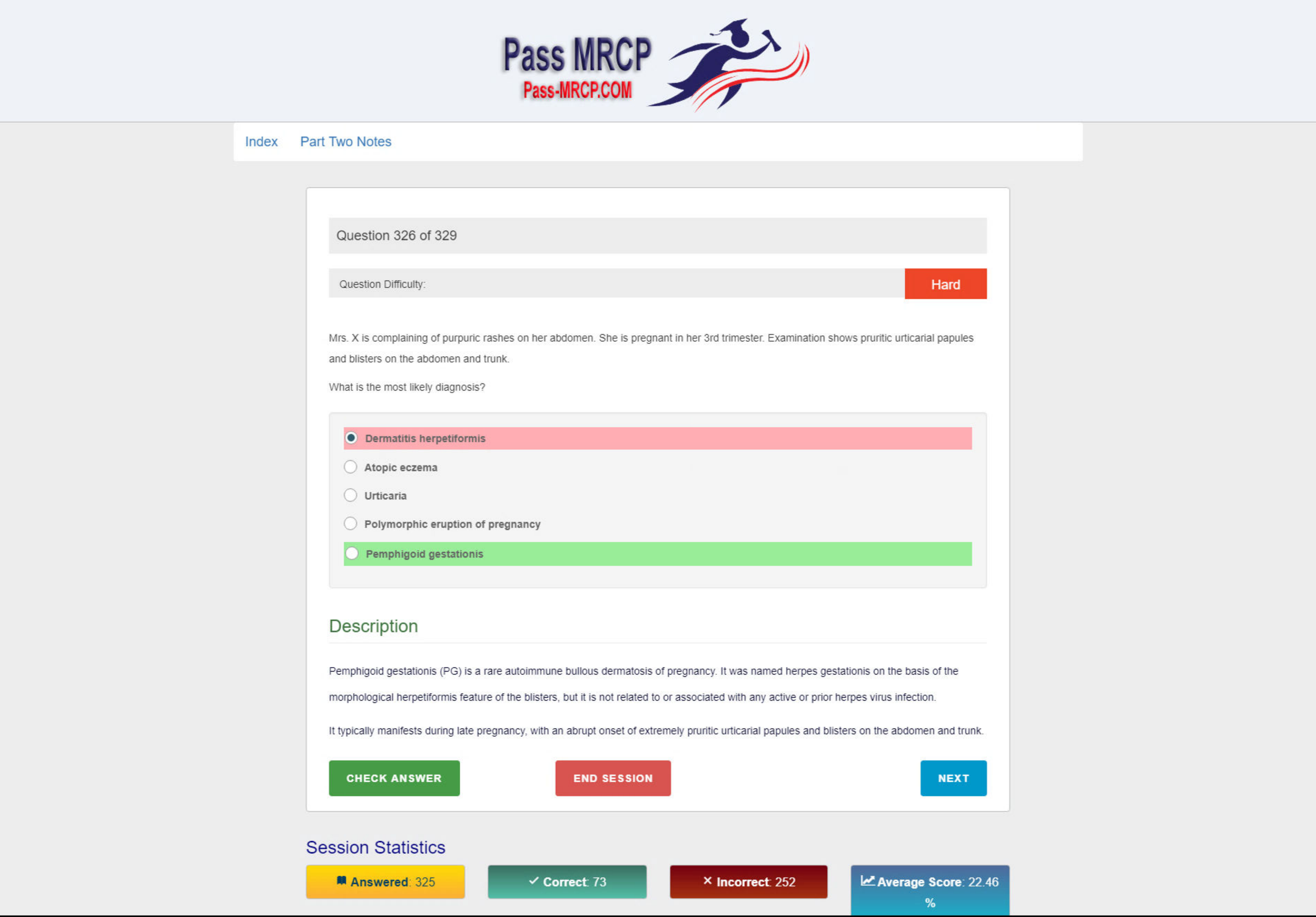
This patient is complaining of genital herpes. It is manifested by:

- Constitutional symptoms include fever, headache, malaise and myalgia
- Local symptoms include pain, itching, dysuria, vaginal and urethral discharge
- Vesicles on the external genitalia and when ruptured it leave tender ulcers
- Tender lymphadenopathy

Tissue culture of HSV is superior for polymerase chain reaction (PCR) for diagnosis.

## Session Statistics

**Answered**: 324
✓ **Correct**: 73
✕ **Incorrect**: 251
**Average Score**: 22.53 %



Question 326 of 329

Question Difficulty: Hard

Mrs. X is complaining of purpuric rashes on her abdomen. She is pregnant in her 3rd trimester. Examination shows pruritic urticarial papules and blisters on the abdomen and trunk.

What is the most likely diagnosis?

- ● **Dermatitis herpetiformis**
- ○ **Atopic eczema**
- ○ **Urticaria**
- ○ **Polymorphic eruption of pregnancy**
- ○ **Pemphigoid gestationis**

## Description

Pemphigoid gestationis (PG) is a rare autoimmune bullous dermatosis of pregnancy. It was named herpes gestationis on the basis of the morphological herpetiformis feature of the blisters, but it is not related to or associated with any active or prior herpes virus infection.

It typically manifests during late pregnancy, with an abrupt onset of extremely pruritic urticarial papules and blisters on the abdomen and trunk.

## Session Statistics

**Answered**: 325
✓ **Correct**: 73
× **Incorrect**: 252
**Average Score**: 22.46 %

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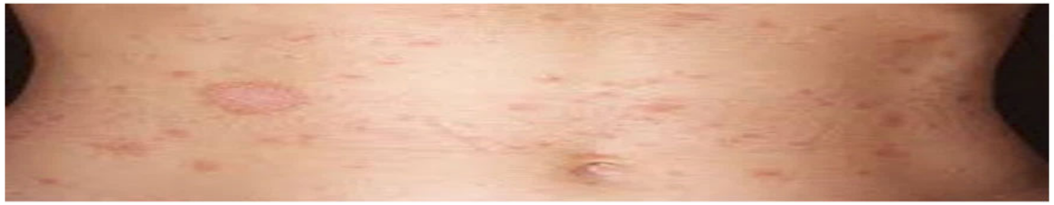
Question Difficulty: **Easy**

Mr. X is complaining of itching skin lesions on his back. Examination shows bilateral salmon-colored oval lesions on his trunk extending to the buttocks and the back of his shoulders as in the image. The patches show some scales at their edges.



What is the most likely diagnosis?

- ● **Guttate psoriasis**
- ○ **Lichen sclerosus**
- ○ **Pityriasis rosea**
- ○ **Pityriasis versicolor**
- ○ **Lichen planus**

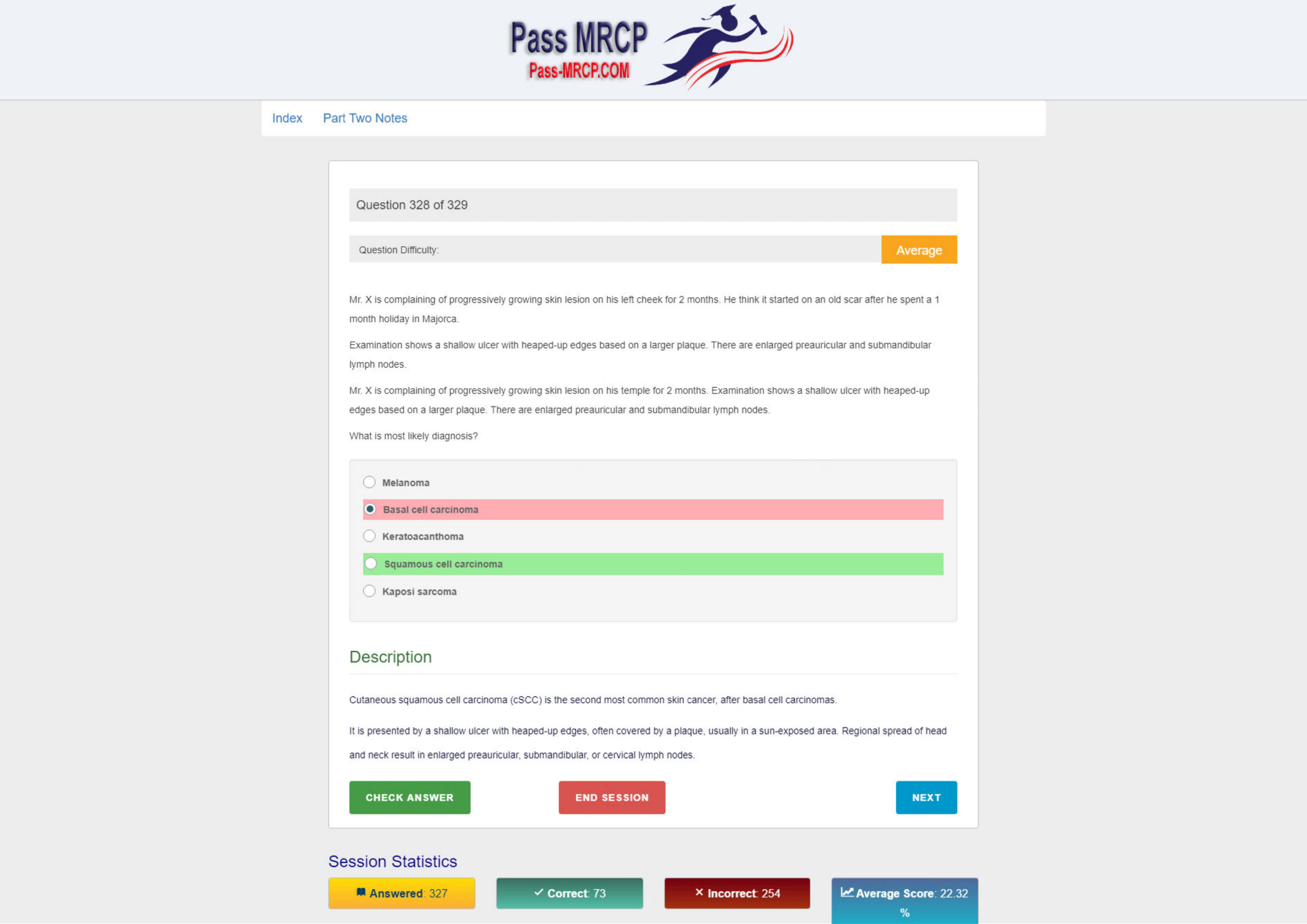
- ● **Guttate psoriasis**
- ○ **Lichen sclerosus**
- ○ **Pityriasis rosea**
- ○ **Pityriasis versicolor**
- ○ **Lichen planus**

## Description

Pityriasis rosea is a benign acute, self-limiting rash. It is caused by human herpes viruses HHV-7 and HHV-6.

It is presented by herald patches (bilateral and symmetric salmon-colored oval patch with scale) usually on trunk associated with pruritus.

CHECK ANSWER END SESSION NEXT



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Question Difficulty: Average

Mr. X is complaining of progressively growing skin lesion on his left cheek for 2 months. He think it started on an old scar after he spent a 1 month holiday in Majorca.

Examination shows a shallow ulcer with heaped-up edges based on a larger plaque. There are enlarged preauricular and submandibular lymph nodes.

Mr. X is complaining of progressively growing skin lesion on his temple for 2 months. Examination shows a shallow ulcer with heaped-up edges based on a larger plaque. There are enlarged preauricular and submandibular lymph nodes.

What is most likely diagnosis?

- ○ Melanoma
- ● Basal cell carcinoma
- ○ Keratoacanthoma
- ○ Squamous cell carcinoma
- ○ Kaposi sarcoma

## Description

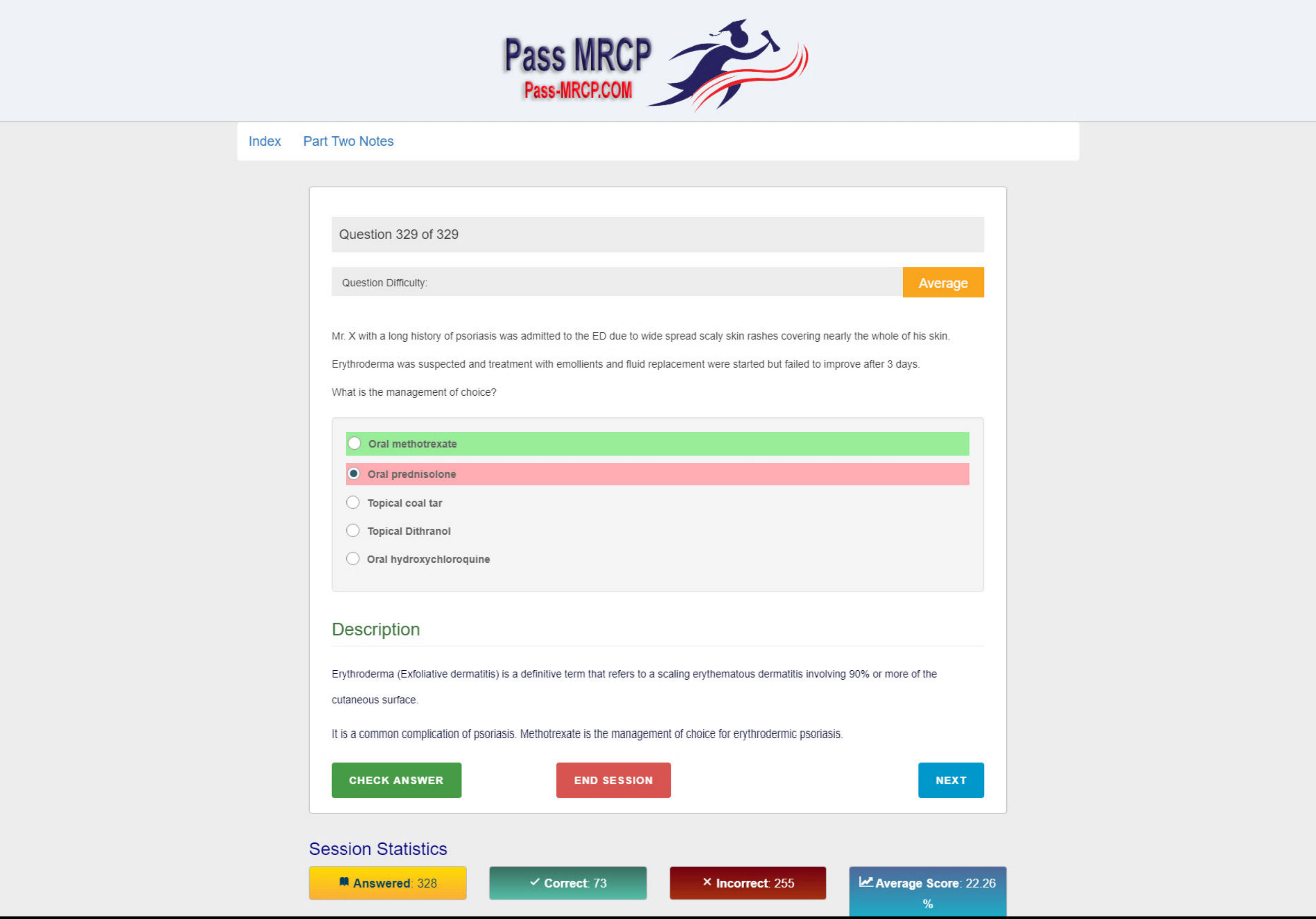
Cutaneous squamous cell carcinoma (cSCC) is the second most common skin cancer, after basal cell carcinomas.

It is presented by a shallow ulcer with heaped-up edges, often covered by a plaque, usually in a sun-exposed area. Regional spread of head and neck result in enlarged preauricular, submandibular, or cervical lymph nodes.

CHECK ANSWER
END SESSION
NEXT

## Session Statistics

Answered: 327
✓ Correct: 73
✕ Incorrect: 254
Average Score: 22.32 %



Question 329 of 329

Question Difficulty: Average

Mr. X with a long history of psoriasis was admitted to the ED due to wide spread scaly skin rashes covering nearly the whole of his skin.

Erythroderma was suspected and treatment with emollients and fluid replacement were started but failed to improve after 3 days.

What is the management of choice?

- ○ Oral methotrexate
- ● Oral prednisolone
- ○ Topical coal tar
- ○ Topical Dithranol
- ○ Oral hydroxychloroquine

## Description

Erythroderma (Exfoliative dermatitis) is a definitive term that refers to a scaling erythematous dermatitis involving 90% or more of the cutaneous surface.

It is a common complication of psoriasis. Methotrexate is the management of choice for erythrodermic psoriasis.

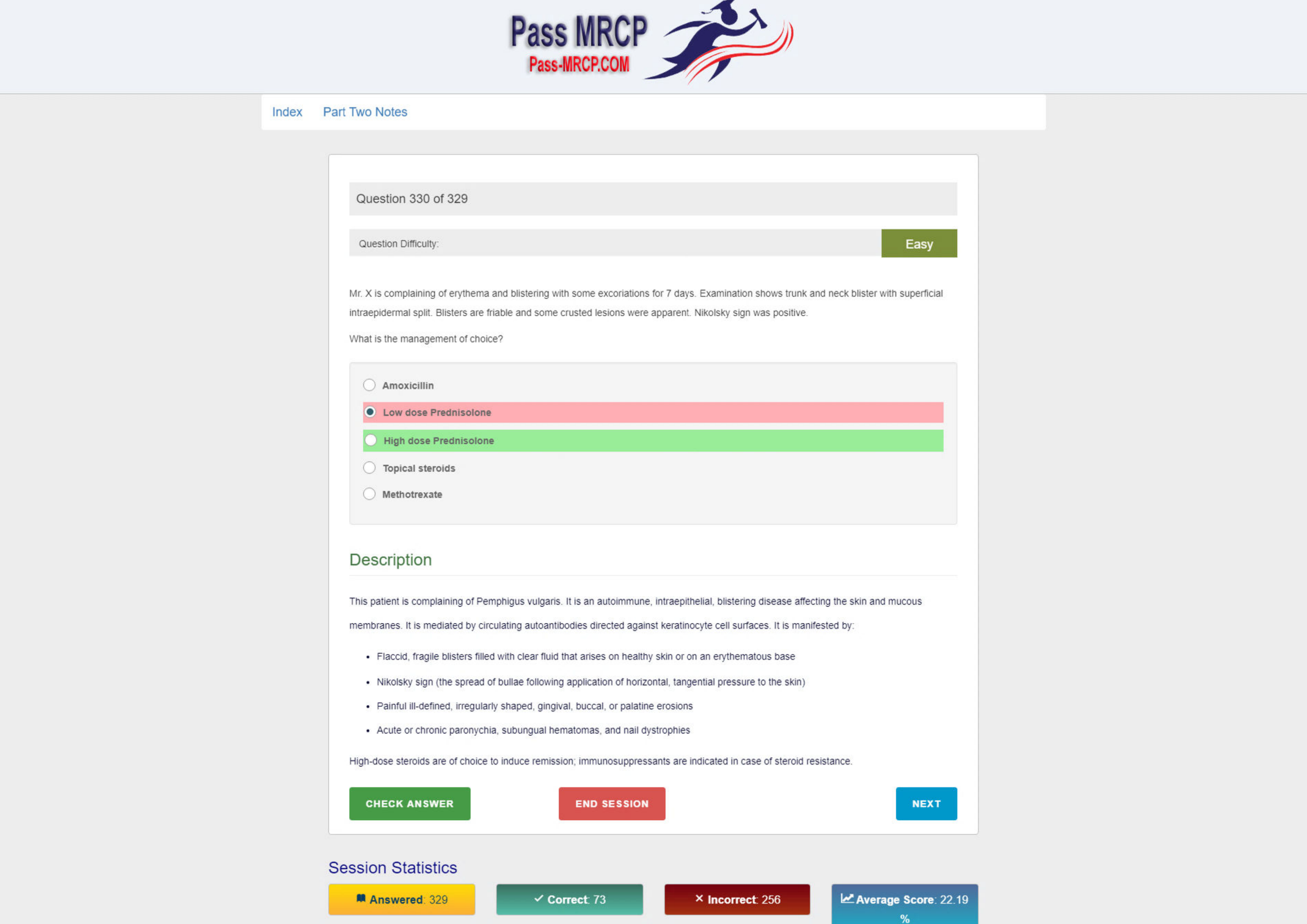
Session Statistics

Answered: 328

✓ Correct: 73

× Incorrect: 255

Average Score: 22.26 %



Question 330 of 329

Question Difficulty: Easy

Mr. X is complaining of erythema and blistering with some excoriations for 7 days. Examination shows trunk and neck blister with superficial intraepidermal split. Blisters are friable and some crusted lesions were apparent. Nikolsky sign was positive.

What is the management of choice?

○ Amoxicillin
● Low dose Prednisolone
○ High dose Prednisolone
○ Topical steroids
○ Methotrexate

## Description

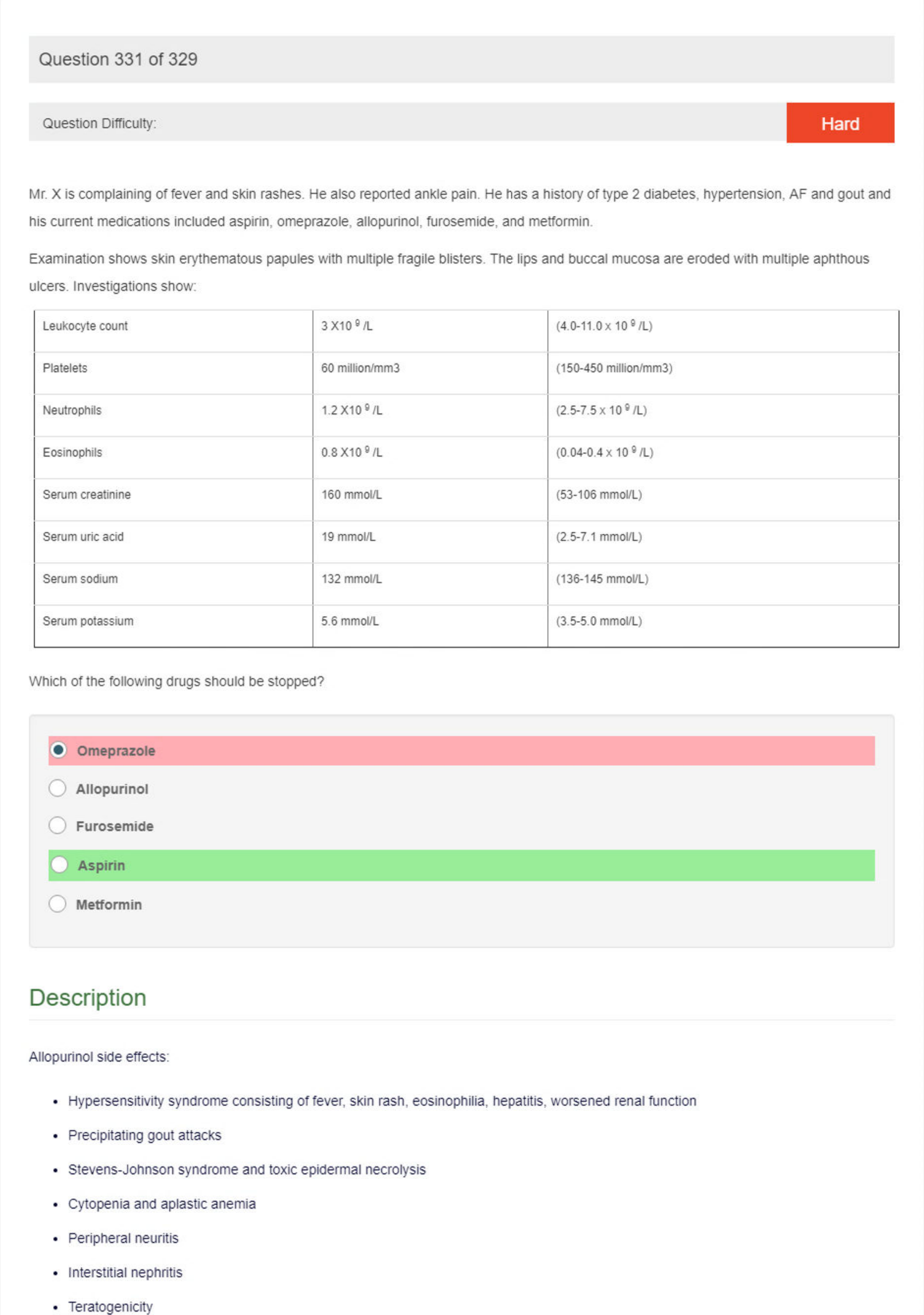
This patient is complaining of Pemphigus vulgaris. It is an autoimmune, intraepithelial, blistering disease affecting the skin and mucous membranes. It is mediated by circulating autoantibodies directed against keratinocyte cell surfaces. It is manifested by:

- Flaccid, fragile blisters filled with clear fluid that arises on healthy skin or on an erythematous base
- Nikolsky sign (the spread of bullae following application of horizontal, tangential pressure to the skin)
- Painful ill-defined, irregularly shaped, gingival, buccal, or palatine erosions
- Acute or chronic paronychia, subungual hematomas, and nail dystrophies

High-dose steroids are of choice to induce remission; immunosuppressants are indicated in case of steroid resistance.

Session Statistics

**Answered**: 329
✓ **Correct**: 73
✕ **Incorrect**: 256
**Average Score**: 22.19 %



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Question Difficulty: **Hard**

Mr. X is complaining of fever and skin rashes. He also reported ankle pain. He has a history of type 2 diabetes, hypertension, AF and gout and his current medications included aspirin, omeprazole, allopurinol, furosemide, and metformin.

Examination shows skin erythematous papules with multiple fragile blisters. The lips and buccal mucosa are eroded with multiple aphthous ulcers. Investigations show:

| | | |
|---|---|---|
| Leukocyte count | 3 X10$^{9}$ /L | (4.0-11.0 x 10$^{9}$ /L) |
| Platelets | 60 million/mm3 | (150-450 million/mm3) |
| Neutrophils | 1.2 X10$^{9}$ /L | (2.5-7.5 x 10$^{9}$ /L) |
| Eosinophils | 0.8 X10$^{9}$ /L | (0.04-0.4 x 10$^{9}$ /L) |
| Serum creatinine | 160 mmol/L | (53-106 mmol/L) |
| Serum uric acid | 19 mmol/L | (2.5-7.1 mmol/L) |
| Serum sodium | 132 mmol/L | (136-145 mmol/L) |
| Serum potassium | 5.6 mmol/L | (3.5-5.0 mmol/L) |

Which of the following drugs should be stopped?

● **Omeprazole**
○ **Allopurinol**
○ **Furosemide**
○ **Aspirin**
○ **Metformin**

## Description

Allopurinol side effects:

- Hypersensitivity syndrome consisting of fever, skin rash, eosinophilia, hepatitis, worsened renal function
- Precipitating gout attacks
- Stevens-Johnson syndrome and toxic epidermal necrolysis
- Cytopenia and aplastic anemia
- Peripheral neuritis
- Interstitial nephritis
- Teratogenicity